



Transmission Owner Reinforcement Instruction (TORI) Quarterly Update Report Q2 April 2022 – June 2022

SSEN Transmission's Quarterly Update Report provides an update on our Transmission Owner Reinforcement Instruction (TORI) projects. These projects are required to reinforce the Transmission network in the North of Scotland to facilitate the connection of renewable generation. These TORI's may be included in connection agreement contacts as Enabling Works or Wider Works.

For each existing TORI in our area, this report provides:

- An overview of the TORI project including completion date.
- A summary of works completed in the last three months.
- A summary of works due to be undertaken in the next three months.

Should you have any questions or feedback on the report, please get in touch with us at transmission.commercial@sse.com



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TORI	Scheme
SHET-RI-007a - Beauly - Blackhillock 400 kV	Beauly - Blackhillock 400 kV Double Circuit OHL
Double Circuit OHL	

Establish a new double circuit 400kV overhead line approximately 110km from Beauly to Blackhillock. The new OHL is connected to the Beauly 400kV AIS busbar and the Blackhillock 400kV GIS busbar.

Project Completion Date 31/10/2030	
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Summary of works in last quarter:

Optioneering works continued and planned coordination with other Beauly Strategic projects. WSP developed constraint mapping and starting to identify corridor options.

Summary of works in next quarter:

Corridors to be developed with supporting documentation prepared for Stakeholder Consultation at the end of next quarter.

Additional Comments:

Project is being developed in parallel to SHET-RI-137 Blackhillock – New Deer – Peterhead 400kV OHL with shared project team.

New Beauly 400kV Busbar to be connected to is captured in scope of SHET-RI-007b.



TORI	Scheme	
SHET-RI-007b - Beauly 400 kV Busbar	Beauly 400 kV Busbar	
Overview of Works		
Construct a new 400kV GIS double busbar at Beau	uly substation and interface with the existing	
275kV busbar. The 400kV double busbar is to con	nprise of one bus section breaker, two bus	
couplers, and feeder bays for circuit connections.		
Project Completion Date	30/03/2027	
Summary of works in last quarter:		
See TORI-042		
Summary of works in next quarter:		
Continuing to develop needs case for proposed works under TORI-042		
Additional Comments:		
N/A		



TORI	Scheme
SHET-RI-009 - East Coast Onshore 275kV	East Coast Onshore 275kV Upgrade
Upgrade	

Establish new busbar Substation at Alyth, to be built at 400kV but initially operate at 275kV, with reactive compensation support. Now includes Errochty Thermal Relay Works scope.

Re-profile the existing Kintore-Tealing-Kincardine 275kV circuits and the existing Tealing-Westfield-Longannet 275kV circuits for higher temperature operation.

Install 275kV Phase shifting transformers on each of the Kintore – Tealing circuits (XT1/XT2) at Tealing substation.

realing substation.		
	Project Completion Date	31/10/2023

Summary of works in last quarter:

Errochty Thermal Relay Works (LT43): All works complete – no further works required.

OHL Works (LT162): No works undertaken in the last quarter. All works complete to programme.

Alyth Substation Works (LT139): Construction works on both the GIS & Statcom buildings as well as the wider site civil works, has progressed well and to programme. GIS building is now fully clad, and all precast foundations are installed across the site.

Tealing Substation (LT208): Design works progressed well along programme development.

Summary of works in next quarter:

Errochty Thermal Relay Works (LT43): All works complete – no further works required.

OHL Works (LT162): No works planned for next quarter. All works complete to programme.

Alyth Substation Works (LT139): Continue to progress with the construction of both the GIS & Statcom buildings as well as the wider site civil works. Mechanical & Electrical phase will now also commence as structures start to be delivered and installed. Oversee the installation of the DNO supply.

Tealing Substation (LT208): Continue to develop design and commence construction works associated with the installation of the 2 Phase Shifting Transformers.

Additional Comments:		
N/A		



TORI	Scheme		
SHET-RI-013 - North Argyll Substation	North Argyll Substation		
Overview of Works			
Establish a new 275/132 kV Substation in North A	Establish a new 275/132 kV Substation in North Argyll near the existing Inveraray/Taynuilt 132 kV		
line route with two 480 MVA 275/132 kV transformers. Space provision only is to be provided for			
additional feeder bays.			
Establish a new 275 kV double circuit OHL between	Establish a new 275 kV double circuit OHL between Creag Dhubh (North Argyll) substation and		
Dalmally Substations.			
Project Completion Date	30/04/2026		
Summary of works in last quarter:			
Town & Country Planning Application for Creag Dhubh (North Argyll) substation to be submitted.			
Section 37 application to build and operate a new	OHL between Creag Dhubh (North Argyll)		
substation and Dalmally submitted.			
Summary of works in next quarter:			
Finalise Works Information and progress invitation to tender for initial works (design).			
Additional Comments:			
N/A			



TORI	Scheme			
SHET-RI-019 - Dounreay - Orkney 220kV Subsea	Dounreay - Orkney 220kV Subsea HVAC Cable			
HVAC Cable Link 1	Link 1			
Overview of Works				
Establish a 220kV HVAC circuit over a distance of approximately 68km between the 275kV GIS				
•	substation at Dounreay on the mainland and the new 132kV substation in the vicinity of Finstown			
· · · · · · · · · · · · · · · · · · ·	on Orkney. The HVAC circuit comprises of approximately 15km of land cable and 53km of subsea			
cable. Voltage Compensation devices will be installed at both cable ends within the substation				
compounds at Dounreay and Finstown.				
Project Completion Date	30/04/2025			
Summary of works in last quarter:				
Continue engagement with Orkney developers.				
Summary of works in next quarter:				
Continue engagement with Orkney developers.				
3 3 3 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4				
Allow 10				
Additional Comments:				
N/A				



TORI	Scheme		
SHET-RI-020 - Dounreay - Orkney 220kV Subsea	Dounreay - Orkney 220kV Subsea HVAC Cable		
HVAC Cable Link 2	Link 2		
Overview of Works			
Establish a second 220kV Subsea HVAC circuit over	er a distance of approximately 68km between the		
275kV GIS substation at Dounreay on the mainlar	nd and the new 132kV substation in the vicinity		
of Finstown on Orkney. The HVAC circuit compris	es of approximately 15km of land cable and		
53km of subsea cable. Voltage Compensation dev	vices will be installed at both cable ends within		
the substation compounds at Dounreay and Finstown. Finstown Substation is established as part			
of SHET-RI-019.			
Project Completion Date	30/04/2025		
Summary of works in last quarter:			
Project on hold.			
Summary of works in next quarter:			
Project on hold.			
Additional Comments:			
N/A			



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TORI	Scheme		
SHET-RI-025a - Peterhead-Rothienorman 400	Peterhead-Rothienorman 400 kV OHL upgrade		
kV OHL upgrade			
Overview of Works			
The 275kV overhead lines between Peterhead, New Deer and Rothienorman (Rothienorman substation established as part of SHET-RI-105) are constructed for 400kV operation. Reinsulate approximately 47km of OHL to 400kV operation and put into service between the new 400kV busbars at Peterhead (established by SHET-RI-025c) and the new 400kV substations at New Deer and Rothienorman (both transitioned to 400kV under SHET-RI-025d).			
Replacement of the existing earth wire with OPGW is required between New Deer -			
Rothienorman.			
Project Completion Date	30/09/2023		
Summary of works in last quarter:			
Please see project update for SHET-RI-025d North East 400kV Reinforcement.			
Summary of works in next quarter:			
Please see project update for SHET-RI-025d North East 400kV Reinforcement.			
Additional Comments:			
N/A			



TORI Scheme

SHET-RI-025b - Eastern Subsea HVDC Link Eastern Subsea HVDC Link

Overview of Works

Install a 2GW HVDC link between Peterhead (SHE-Transmission) and Drax (NGET).

This TORI describes the SSENT works.

HVDC cables to be routed into the sea, then south towards the North East of England in NGET's license area.

Project Completion Date 31/10/2029

Summary of works in last quarter:

Received and reviewed PQQ responses

Completed GI works at Peterhead

Preparation of tenders (RfP) for cable and converter

Progressed Head of Terms for Land in Peterhead

Received Planning Permission in Principal for Peterhead Converter station

Summary of works in next quarter:

Issue letters to the supply chain notifying success or otherwise in PQQ event

Completion of RfPs for cable and converters

Progress agreements and consents

Secure Land in Peterhead

Progress Crown Estate Scotland Lease Agreement

Progress NDAs and Crossing Agreements with third parties

Prepare for internal governance milestone activities

Additional Comments:

RFP launch to market forecast for 28th July



TORI	Scheme
SHET-RI-025c - Peterhead 400 kV Busbar	Peterhead 400 kV Busbar

Construct a new 400kV substation close to the existing 275kV substation at Peterhead. Install two new 1200MVA 400/275kV supergrid Transformers and approx. 500m of 275kV cable between the new 400kV busbar and the existing 275kV busbar. Two new Overhead line towers and Installation of 132kV cable from new Cable sealing end to existing 275kV sub station.

Modify the existing 275 kV substation and busbar arrangements to accommodate the above works. The existing 275/132kV supergrid transformer SGT1 which is currently connected to line circuit reference VX1 will be banked with the new 1200MVA 400/275kV under a separate project.

Project Completion Date 31/10/2023

Summary of works in last quarter:

Wall cladding, louvers, flashing and external doors all completed on SGT4 and SGT5 buildings. Installation of General Electric SGTs, cooler banks, transformers.

BBPTD hand over of GIS building to Hitachi prior to GIS and GIB equipment delivery, installation and by HITACHI, commencing May 2022.

Completion of steel erection of Tower 90 and 91 for new Overhead Line.

275kV ducting will continue after full design route derogation has been agreed from New 400kV Substation to existing 275kV Substation.

Complete installation of AIS plant 275kV-400kV prior to stage one commissioning Jan 2023.

Planting completed around perimeter of site.

Kerbing to Substation perimeter road and final surfacing.

Summary of works in next quarter:

All three buildings externally completed with completion of containment works within ongoing. GE-UK are continuing to build the two new 1200MVA SGTs and will be moving to oiling up and commissioning stage late June /early July.

Delivery of first half of GIS equipment from Hitachi now due 23rd June Hitachi staff now mobilised to site w/c 23rd May. Second batch of GIS equipment due 30th June.

Two new AVRs will delivered to site 9th June and associated installation work will be on going.

Despite issues in Sri Lanka, Protection and Control panels will arrive throughout June and July and installation will continue throughout the next 4 months.

General civil works will be ongoing with regards final surfacing to footpaths, any remaining foundations poured and infilling of SGT bunds with specified gravel. It is also expected that general upfilling to main platform to finished level will begin in various areas.

275kV ducting will continue to be installed between new and existing Substation.

Additional Comments:		
N/A		



TORI	Scheme
SHET-RI-025d - North East Reinforcement	North East Reinforcement

Re-insulate the 275kV double circuit overhead lines between Rothienorman – Blackhillock and Rothienorman - Kintore for 400kV operation.

Remove the two line connected 400/275kV, 1200MVA SGTs from Blackhillock Substation. Install two new 400/275kV, 1200MVA at Kintore for terminating the Rothienorman to Kintore double circuit overhead line onto the 275kV busbar at Kintore.

Install two 400/132kV, 240MVA SGT's and two 132/33kV, 120MVA GTs to connect the Rothienorman GSP to the 400kV Rothienorman Busbar.

Project Completion Date 31/10/2023

Summary of works in last quarter:

OHL Works – Complete works on NDR1/NDR2 between Rothienorman and New Deer Substations. Start works on HR1 circuit between Blackhillock and Rothienorman. All works progressing in line with schedule.

Kintore Substation Works – Completion of the building steelwork and cladding installation, Completion of the 2no Transformer oil containment bunds, Commencement of switchgear support foundations, commencement of Transformer manufacture, and continuation of design for the substation protection and control system.

Rothienorman Substation Works – Site set-up is complete; work is underway in the substation compound. Equipment orders are secured and the SGT factory inspections are ongoing and proceeding satisfactorily.

Summary of works in next quarter:

OHL Works - Continue with works on HR1 circuit between Blackhillock and Rothienorman, and on completion commence works on HR2. All works progressing in line with the schedule.

Kintore Substation Works – Completion of the building and equipment bases. Commence installation of electrical equipment. Factory acceptance testing of Transformers with delivery expected in October 2022.

Rothienorman Substation Works - Completion of the SGT bunds on site. Factory Acceptance Tests for the SGT's

Additional Comments:		
N/A		



TORI	Scheme	
SHET-RI-026 - Blackhillock 275 kV QBs	Blackhillock 275 kV QBs (PSTs)	
Overview of Works At Blackhillock, install 2 x 865MVA (continuous rating) 275kV quadrature boosters with bypass on		
appropriate.		
Project Completion Date	31/10/2026	
Summary of works in last quarter:	31/10/2020	
Continued with Design development work, including undertaking of System Studies required, on		
•		
the project alongside the East Coast 400kV upgrade works in line with programme dates.		
Summary of works in next quarter:		
Potential suppliers to be engaged to confirm footprint of units, lead times and high-level costing.		
Additional Comments:		
N/A		



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TORI	Scheme		
SHET-RI-028 – Thurso South to Gills Bay 132kV	Thurso South to Gills Bay 132kV OHL		
OHL			
Overview of Works			
It is proposed to construct a new 132kV GIS doub	le busbar arrangement switching station at		
Phillipstoun Mains, near Gills Bay (west of John O	'Groats) and connect in two radial circuits from		
Thurso south.			
Construct a new suitably rated hybrid overhead li	ine and underground cable double circuit,		
operated at 132kV, from Gills Bay to Thurso Sout	h.		
Project Completion Date	31/03/2026		
Summary of works in last quarter:			
Consent for switching station deferred to Highlar	Consent for switching station deferred to Highland Council June Planning Committee		
Continued engagement with landowners to secure outstanding land agreements.			
Continued development of Needs Case and CBA (MSIP submission now January 2023).			
Summary of works in next quarter:			
Engage with Developers further to outcome of CfD4 auction expected in July to ascertain any			
potential impact om programme.			
Continued engagement with landowners to secure outstanding land agreements.			
Continued development of Needs Case and CBA (MSIP submission now January 2023).			
Additional Comments:			
N/A			



TORI	Scheme			
SHET-RI-033 - Second 2 GW East Coast HVDC	Second 2 GW East Coast HVDC Link Peterhead			
Link Peterhead to England	to England			
Overview of Works				
Install an indoor 2GW HVDC converter station w	ith associated equipment. HVDC cables to be			
routed into the sea and then south towards Engl	and (landing point to be confirmed). This will be a			
joint project with National Grid.				
Project Completion Date	31/10/2031			
Summary of works in last quarter:				
Continued development of initial needs case scope.				
Summary of works in next quarter:				
Continuation high-level project development, alo	ong with initial internal governance activities.			
Additional Comments:				
N/A				



TORI Scheme

SHET-RI-042 - Western Isles - Beauly HVDC Link | Western Isles - Beauly HVDC Link

Overview of Works

Establish a 600MW HVDC link with associated equipment and converter stations between the Western Isles (Arnish on Lewis) and the 400kV double busbar at Beauly (established under SHET-RI-007b). The HVDC cable is to be approximately 79km of subsea cable, and approximately 80km of land cable. The HVDC infrastructure will interface with a new 132kV double busbar at Arnish (Lewis) and the 400kV double busbar at Beauly.

Project Completion Date 30/03/2027

Summary of works in last quarter:

Held initial Pre-App discussion with the Highland Council

Progress site selection at Mainland Convertor Station

Public consultation planning for Arnish Converter Station.

Re-validation of cable routing through independent RAG assessment

Advanced land assembly strategy for cable route wayleaves.

Agree Land Options for Mainland Converter Station options

Agree Heads of Terms with HIE for Arnish Converter Station

Preparation of Final Needs Case

Summary of works in next quarter:

Submission of FNC based on successful CfD for EDF.

Progress project activities and advance contractor consultation.

Additional Comments:

N/A



Lewis Infrastructure			
Build a new 132kV single circuit OHL between existing Stornoway substation, the new Arnish substation (provided under SHET-RI-042 - Western Isles - Beauly HVDC Link) and a new AC switching station at Balallan on the Isle of Lewis.			
Dismantle the existing 132kV single circuit OHL between Balallan and the existing Stornoway substation.			
30/03/2027			
Summary of works in last quarter:			
Discussions on how best to proceed with project continued.			
Summary of works in next quarter:			
Continuing discussions on how best to proceed with project.			
Additional Comments:			



TORI	Scheme		
SHET-RI-046 - Taynuilt-North Argyll Rebuild Taynuilt-North Argyll Rebuild			
Overview of Works			
Reinforce the transmission network between Tay	•		
part of SHET-RI-013). Rebuild approximately 12.5	•		
line between North Argyll and Taynuilt with a lar	ger capacity 132kV.		
Project Completion Date	31/10/2028		
Summary of works in last quarter:			
Project on hold.			
Summary of works in next quarter:			
Project on hold.			
Additional Comments:			
N/A			



TORI	Scheme	
SHET-RI-050b - Port Ann - Crossaig	Port Ann - Crossaig Reinforcement	
Reinforcement		
Overview of Works		
Reinforce the 132kV Transmission Network in the Kintyre Peninsula. Rebuild approximately 48km		

of double circuit OHL between Port Ann and Crossaig. The towers will be built for 275kV

Project Completion Date

31/10/2023

Summary of works in last quarter:

operation, but initially operated at 132kV.

Timber felling and extraction activities continue and are nearing completion. The construction of access tracks and tower foundations continued in line with programme with 60 foundations and 18 towers completed. The Crarae Substation double circuit substation outage works completed and energised on schedule.

Summary of works in next quarter:

Key activities for the next quarter are focussed on the installation of the primary and secondary protection equipment at An Suidhe Substation as well as continuing access track, tower foundations and tower erection on the overhead lines.

Additional Comments:		
N/A		
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TORI	Scheme
SHET-RI-052 - Lairg-Loch Buidhe 132kV	Lairg-Loch Buidhe 132kV Reinforcement
Reinforcement	

Establish a new 132kV double busbar at Lairg (Dalchork Substation) and construct approximately 17km of new double circuit 132kV overhead tower line between Lairg and Loch Buidhe.

Project Completion Date	24/06/2022

Summary of works in last quarter:

Close out of any outstanding construction works and completion of the substation access road & landscaping of the surrounding areas. Completion of the Stage 1 and then Stage 2 (final) commissioning and energisation of Dalchork Substation.

Summary of works in next quarter:

Close out the outstanding works/defects and remote end works. As built information collation.

Additional Comments: N/A



TORI S	Scheme
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SHET-RI-053 - Shetland 600 MW HVDC Link and Kergord 132kV Substation

Shetland 600 MW HVDC Link and Kergord 132kV Substation

Overview of Works

Construct a 600MW HVDC link from Shetland to the Scottish mainland at an HVDC switching station in the vicinity of Noss Head in Caithness. The HVDC switching station works will integrate with the Caithness-Moray Transmission Reinforcement (part of SHET-RI-031)

The HVDC link includes a 600MW HVDC converter station and 132kV Substation at Kergord in Shetland. The new 132kV Substation at Kergord will be the collection point for generation in Shetland.

The 600MW HVDC link will have approximately 10km of land cable and 260km of subsea cable between Shetland and the HVDC switching station in Caithness.

Project Completion Date 01/07/2024

Summary of works in last quarter:

Noss Head DC Switching Station: Substantially completes civil works and HVDC cable installation works and commenced HVDC equipment installation

Kergord HVDC Converter: Continue HVDC equipment installation, completed HVDC cable and termination installation in Converter station. Continue M&E /building services installation and civil works

HVDC cable: Completed Pre Lay Grapnel Run and boulder clearance activities and preparation works for Campaign 1 (of 3) Offshore HVDC cable installation – c 100km. Continued manufacturing Offshore DC Cable. Completed land cable installation in Caithness, continued land cable installation in Shetland

Summary of works in next quarter:

Noss Head DC Switching Station: Continue with HVDC equipment installation and complete civil works.

Kergord HVDC Converter: Continue HVDC equipment installation and M&E building services and external civil works. Continue M&E fitout to AC substation.

HVDC Cable: Complete onshore cable installation in Shetland. Lay first 100km of offshore cable including cable pull-in to Noss Head (Caithness) and commence offshore cable burial. Continue offshore cable manufacturing.

Additional	Commen	ts:
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N/A



TORI	Scheme	
SHET-RI-058 - Beauly-Loch Buidhe 275kV OHL	Beauly-Loch Buidhe 275kV OHL Reinforcement	
Reinforcement		
Overview of Works		
This project is to reinforce the existing BSW/BSE	Beauly, Shin to Loch Buidhe 132kV double circuit	
with a higher capacity 275kV double circuit OHL.		
The reinforcement will include a new double circ 40km, as well as works at Beauly, Loch Buidhe an	uit steel lattice tower construction approximately and Shin substations.	
Project Completion Date	31/10/2030	
Summary of works in last quarter:		
Review strategic options and continue early option development.		
Summary of works in next quarter:		
Continuing to review strategic options against the	e connection of offshore generation	
Additional Comments:		
N/A		



TORI	Scheme	
SHET-RI-059 - Third 2GW East Coast HVDC Link	Third 2GW East Coast HVDC Link Peterhead to	
Peterhead to England	England	
Overview of Works		
Install an indoor 2GW HVDC converter station wi	• •	
_	and (landing point to be confirmed). This will be a	
joint project with National Grid.		
Project Completion Date	31/10/2033	
Summary of works in last quarter:		
Project on hold.		
Summary of works in next quarter:		
Project on hold.		
Additional Comments:		
N/A		



TORI	Scheme
SHET-RI-061 - Skye Overhead Line	Skye Overhead Line Reinforcement
Reinforcement	
Overview of Works	

Construct a new 132kV circuit from Fort Augustus to Ardmore. The circuit is proposed as double circuit structure from Fort Augustus to Broadford, Single Circuit Structure from Broadford to Edinbane and single circuit structure from Edinbane to Ardmore (approximately 160km Fort Augustus 132kV substation to Ardmore 132kV substation).

Project Completion Date31/12/2025		
	Project Completion Date	31/12/2025

Summary of works in last quarter:

Continue with land options on preferred OHL alignment, finalise draft EIA and undertake legal

Engage with Ofgem and stakeholders on the FNC submission.

Summary of works in next quarter:

Submit s37 consent application and Ofgem Final Needs Case. Undertake project construction tenders for the various parts of the project – OHL, UGC, SS, etc.

Additional Comments:		
N/A		



TORI	Scheme
SHET-RI-065a - Beauly 132 kV Substation	Beauly 132 kV Substation Redevelopment
Redevelopment	
Overview of Works	

Establish a new 132kV double busbar arrangement at Beauly substation, and transfer the circuits from the existing 132kV busbar to the new busbar. Connect the new 132kV double busbar to the existing 275kV busbar via two new 360MVA 275/132kV transformers. Third new 360MVA 275/132kV transformer will be undertaken under SHET-RI 065b

275/132kV transformer will be underto	aken under SHET-RI 065b
Project Completion Date	31/10/2024

Summary of works in last quarter:

Contractor design contract awarded, design progressing as expected.

Planning Permission Application submitted.

Super Grid Transformer Tenders under review.

Archaeology and Ecology surveys ongoing.

Summary of works in next quarter:

Pre-commencement works for Planning Consent Super Grid Transformer manufacture to commence Contractor mobilisation and site-set-up to commence

Contractor mobilisation and site-set-up to commence					
Additional Co	mments:				
N/A	minicitis.				



TORI	Scheme				
SHET-RI-065b - Beauly 3rd SGT Replacement	Beauly 3rd SGT Replacement				
Overview of Works					
Replacement of third existing 275/132kV 120MV	A SGT with a new 360MVA 275/132kV				
transformer.					
SHET-RI 065a covers establishment of a new 132l					
substation, and transfer the circuits from the exis	ting 132kV busbar to the new busbar.				
Project Completion Date	31/10/2025				
Summary of works in last quarter:					
See TORI-065a					
Summary of works in next quarter:					
Additional Comments:					
Project completion date for the TORI-065b is under review. Project passed through Gate 2 on the					
assumption that the works needed to be completed within the T2 period. It is likely that a change					
request will be submitted to amend this complet	ion date.				



TORI	Scheme					
SHET-RI-066 - Fort Augustus Substation	Fort Augustus Substation 400/275kV					
400/275kV Development	Development					
Overview of Works	20000					
	include a new 275kV busbar. The 275kV busbar is					
connected to the 400kV busbar via two 1200MV/	4 400/275kV Supergrid transformers. The 400kV					
busbar is part of SHET-RI-064 works.						
Project Completion Date	TBC					
Summary of works in last quarter:						
Project on hold						
Summary of works in next quarter:						
Project on hold.						
,						
Additional Comments:						
N/A						



TORI	Scheme
SHET-RI-068 - Fort Augustus -Invergarry-	Fort Augustus -Invergarry-400/132kV
400/132kV Development	Development

Upgrade the existing 132kV double circuit OHL between Fort Augustus and Invergarry substation with a new 400kV OHL. The existing 132kV OHL forms part of the Fort Augustus to Fort William FFE/FFW Circuits.

Part of the upgrade is to establish a 400/132kV substation at Invergarry to connect the existing 132kV OHL from Fort William and Invergarry Generation.

The new 400kV OHL will terminate into the 400kV busbar at Fort Augustus. The 400kV busbar is part of SHET-RI-064 works.

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31/10/2027

Summary of works in last quarter:

Project Completion Date

Prepare and issue Consultation Documents

Hold Public and Statutory Consultations for alignment and substation site

Engagement with ECU and Planning Authorities

Summary of works in next quarter:

Prepare and issue Report on Consultation

Commence further environmental and engineering surveys on proposed alignment Issue Scoping Documents

Commence EIA

Continued engagement with ECU and Landowners

Pre-Application Consultation Events for substation planning applications

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N/A



TORI	Scheme				
SHET-RI-069 - Kinardochy Reactive	Kinardochy Reactive Compensation				
Compensation					
Overview of Works					
Reactive Compensation is required at a new Kina	rdochy substation for voltage support on the				
275kV Beauly-Denny overhead line. The Reactive	Compensation will require a capability of +				
325MVAr and -225MVAr.					
Project Completion Date	31/08/2024				
Summary of works in last quarter:	Summary of works in last quarter:				
Construction of the two new temporary towers for the OHL diversion works,					
Completion of all tree felling and timber removal works,					
Commencement of material processing on site and formation of the main substation platform.					
Summary of works in next quarter:					
Completion of the substation platform formation,					
Commencement of the GIS building foundations,					
Construction of the permanent access track to the substation.					
Additional Comments:					
N/A					



TORI	Scheme						
SHET-RI-072 - Blackhillock-Kintore 400 kV OHL	Blackhillock-Kintore 400 kV OHL Upgrade						
Upgrade							
Overview of Works							
Replace the existing 55km XH1/XH2 275kV double circuit OHL with a 400kV double circuit OHL.							
The new 400kV OHL will terminate on the 400kV	busbars at Blackhillock and Kintore substations.						
A new connection arrangement is required at Cairnford substation to allow connection to the proposed 400kV OHL.							
Project Completion Date	30/09/2027						
Summary of works in last quarter:							
Project superseded by SHET-RI-137 Blackhillock – New Deer – Peterhead							
Summary of works in next quarter:							
Project superseded by SHET-RI-137 Blackhillock – New Deer – Peterhead							
Additional Comments:							
N/A							



TORI	Scheme					
SHET-RI-075 - Orkney 132kV Infrastructure Finstown - Ellibster	Orkney 132kV Infrastructure Finstown - Ellibster					
Overview of Works						
SHET-RI-075 works forms part of the Orkney 132kV Local Onshore	Transmission Infrastructure.					
The works includes the establishment of the 132 kV Switching Stati	on at Ellibister and a 132kV					
OHL Trident wood pole connection from Ellibister to Finstown Subs	tation. Note that Finstown					
132kV Substation is established as part of SHET-RI-019 works.						
Project Completion Date	30/04/2025					
Summary of works in last quarter:						
Project on hold.						
Summary of works in next quarter:						
Project on hold.						
Additional Comments:						
N/A						



TORI	Scheme						
SHET-RI-079 - Blackhillock Additional	Blackhillock Additional 275/132kV SGTs						
275/132kV SGTs							
Overview of Works							
Reinforce the transmission network at Blackhill	Reinforce the transmission network at Blackhillock substation by installing two additional new						
275/132kV Supergrid Transformers. The transfo	ormers are to be rated at 360MVA.						
Project Completion Date	30/06/2025						
Summary of works in last quarter:							
Progress cable routing assessment from 132kV	GIS building to new SGT. Further technical						
assessments to progress substation and transformer design including buried services, structural							
assessment, noise impact and earthing study to feed in to works information for invitations to							
tender.							
Summary of works in next quarter:							
Further progress cable routing assessment from 132kV GIS building to new SGT. Further technical							
assessments to progress substation and transformer design including buried services, structural							
assessment, noise impact and earthing study to feed in to works information for invitations to							
tender.							
Additional Comments:							
N/A							



TORI	Scheme
SHET-RI-086 - Craig Murrail Switching Station	Craig Murrail Switching Station

It is proposed that a new 132 kV switching station will be constructed near the Port Ann tee point (Craig Murrail) cutting into the Crossaig-Inveraray 132 kV double circuit. Disconnect Port Ann from tee points on the 132kV OHL and connect Port Ann GSP directly onto the new 132kV double busbars.

Project Completion Date	30/04/2027

Summary of works in last quarter:

Town & Country Planning Application for Craig Murrail substation to be further developed. Section 37 application to be further developed for two temporary 275kV towers required during the construction works. These will be removed once the existing Inveraray – Crossaig 275kV OHL circuits are tied into to the new substation.

Framework tender (ITT) documentation to be developed.

Summary of works in next quarter:

Town & Country Planning Application for Craig substation to be submitted.

Section 37 application to be submitted for two temporary 275kV towers required during the construction works. These will be removed once the existing Inveraray – Crossaig 275kV OHL circuits are tied into to the new substation.

circuits are tied into to the new substation. ITT documentation to be issued to Framework Contractors.	
Additional Comments: N/A	_



TORI	Scheme
SHET-RI-088 - Loch Buidhe - Dounreay 275kV	Loch Buidhe - Dounreay 275kV Reinforcement
Reinforcement	

Increase the operating temperature of the existing 275kV double circuit OHL between Loch Buidhe and Dounreay (approximately 87km). The double circuit is proposed to be operated at 90°C which will increase the thermal capability of the circuit.

Project Completion Date	31/08/2025
Summary of works in last quarter:	

Progress initial optioneering and assessment of increasing the operating temperature on the 275kV circuit.

Summary of works in next quarter:

Continuing to develop initial needs case of increasing the operating temperature on the existing 275 kV circuit.

Additional Comments: N/A



TORI Scheme

SHET-RI-089 - Farigaig SGT2 Upgrade Farigaig SGT2 Upgrade

Overview of Works

Upgrade the 120MVA 275/132kV SGT2 at Farigaig substation to a 240MVA SGT, to facilitate the connection of generation in the area.

Project Completion Date 30/08/2024

Summary of works in last quarter:

- Confirm 275kV CB (circuit breaker) suitable for point on wave switching. If not obtain costs for required modifications ore replacement if more cost effective
- Confirm whether existing SGT protection scheme can be retained / re-used (potential saving)
- Prepare works information for Part A tender for substation works

Summary of works in next quarter:

• Issue Part A ITT to contractors in Q3 2022

Additional Comments:

Order for SGT has been placed with manufacturer. Require delivery to site in February 2024. Instruction to manufacturer to proceed with manufacture to be issued by 31 October 2022. This allows manufacturer 16 months for manufacture and deliver to site.



TORI	Scheme		
	Coupar Angus - Errochty 132kV Reconductoring		
SHET-RI-090 - Coupar Angus - Errochty 132kV	Coupar Arigus - Errocitty 132kV Neconductoring		
Reconductoring			
Overview of Works			
Reconductor approximately 15.4km of the existir	ng 132kV double circuit OHL between Errochty		
and Clunie substations. This double circuit is to be	e reconductored with UPAS conductor (1 x		
300mm2) and will operate at 75°C to give a minir	•		
grant and an operate at 70 of the given a minimum			
Project Completion Date	31/10/2026		
Summary of works in last quarter:			
Project on hold.			
Summary of works in next quarter:			
Project on hold.			
rioject on noid.			
Additional Comments:			
N/A			
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TORI	Scheme
SHET-RI-093 - East Coast Phase 2 - 400kV	East Coast Phase 2 - 400kV Reinforcement
Reinforcement	

Upgrade the existing Blackhillock / Rothienorman / Kintore / Alyth / Kincardine east coast 275kV circuits to 400kV operation. Establish a new 400kV double busbar at Kintore to enable this upgrade.

This upgrade also interfaces at Blackhillock 400kV Substation and with Scottish Power Transmission (SPT) at Kincardine substation. SPT will be responsible for all the 400kV OHL upgrade and substation works beyond the SSEN Transmission/SPT Boundary (Boundary 4).

Project Completion Date	31/10/2026

Summary of works in last quarter:

Kintore Substation Works – Completion of the building steelwork and cladding installation, Completion of the 2no Transformer oil containment bunds, Commencement of AIS switchgear support foundations, commencement of Transformer manufacture, continued engineering development with the GIS manufacturer in relation to final GIS arrangement and GIB foundations, and continuation of design for the substation protection and control system.

Fetteresso 400kV upgrade – Completion of internal governance requirements. Ongoing assessment of whether 1 or 2 SGTs are required for the project scope.

East Coast OHL 400kV Upgrade Works – Submission of first tranche of Part A design deliverables to complete. Site investigation and foundation intrusive works to commence.

Summary of works in next quarter:

Kintore Substation Works – TBC

Fetteresso 400kV upgrade – Completion of internal assessment regarding whether 1 or 2 SGTs are required for the project scope.

East Coast OHL 400kV Upgrade Works - TBC

Additional Comments:		
N/A		



TORI	Scheme	
SHET-RI-098 - Dunoon GL1-GL2 OHL Rebuild	Dunoon GL1-GL2 OHL Rebuild	
Overview of Works		
Rebuild approximately 18km of double circuit over	erhead line between Dunoon substation and the	
SHET – SPT boundary.		
This project interfaces with Scottish Power Trans		
the SHET-SPT boundary will be the responsibility	of SPT.	
Project Completion Date	30/05/2026	
Summary of works in last quarter:	00,00,2020	
Undertake GI works at angle tower locations.		
Complete pre s37 deliverables such as Traffic Ma	nagement Plan (TMP) and tower access report.	
Issue wayleaves and Heads of Terms (HOT's) to landowners.		
Summary of works in payt quarter		
Summary of works in next quarter:		
Complete Part A Tender.		
Carry out 514 submit 527 to 501		
Carry out EIA, submit s37 to ECU. Continue Landowner negotiations.		
Continue Landowner negotiations.		
Additional Comments:		
N/A		



TORI	Scheme	
SHET-RI-105 - Rothienorman s/s &	Rothienorman s/s & Rothienorman - Kintore	
Rothienorman - Kintore Reconductoring	Reconductoring	
Overview of Works		
Establish a new double busbar at Rothienorman t	to be built at 400kV, but initially operate at	
275kV. Re-conductor the 275kV double circuit ov	erhead line between the new double busbar at	
Rothienorman and Kintore substation (MX1, MX2	2).	
Project Completion Date	20/08/2021 (energised)	
Summary of works in last quarter:		
Ongoing completion of outstanding remedial works and defects correction.		
Summary of works in next quarter:		
Completion of remaining remedial works and financial closure.		
Additional Comments:		
None		



Scheme		
Connagill 2nd SGT		
V 360MVA supergrid transformer, to enable the		
to the Dounreay – Loch Buidhe 275kV circuit.		
01/04/2024		
Commence procurement of the SGT.		
Additional Comments:		
N/A		



TORI	Scheme		
SHET-RI-107 - North Argyll - Inveraray	North Argyll - Inveraray Reinforcement		
Reinforcement			
Overview of Works			
Reinforce the double circuit overhead line betwe	en North Argyll 275/132kV substation		
(established as part of SHET-RI-013) and Inverara	y 132kV switching station. This reinforced circuit		
will connect to the double circuit overhead line fr	om Crossaig (rebuilt as part of SHET-RI-050)		
approximately 2.8km away from Inveraray.			
Project Completion Date	30/04/2027		
Summary of works in last quarter:			
Finalise alignment and access track design and subsequent environmental assessment.			
Stakeholder and Public Consultation on preferred alignment to be completed. Prepare works			
information for invitation to tender.			
Prepare relevant documentation for Section 37 submission to the ECU for the new OHL.			
Summary of works in next quarter:			
Section 37 application to be submitted for the new overhead line.			
ITT documentation to be issued to Framework Contractors.			
Additional Comments			
Additional Comments:			
N/A			



TORI	Scheme
SHET-RI-109 - Loch Buidhe - Spittal 132kV	Loch Buidhe - Spittal 132kV Reconductoring
Reconductoring	

Reconductor the existing 90km 132kV tower line between Loch Buidhe and Spittal substations. The 132kV overhead line is to be reconductored with a higher capacity conductor than the existing conductor and should have a minimum summer pre-fault rating of 176MVA.

Project Completion Date 30/06/2027		30/06/2027
Summary of works in last quarter:		
	Continuation of the Gate 0 - 1 stage 'Opportunity Assessment'.	

Energyline scope to be created Identify Landowners

Draft Gate 1 Docs

Summary of works in next quarter:

Engage with OFGEM for MSIP Application Lidar and Energyline Assessments to be completed Environmental studies to be carried out in summer

Gain understanding of access track requirements (Temporary or Permanent)

dani didensiananig of decess track requirements (remporary of remainent)
Additional Comments:
N/A



TORI	Scheme			
SHET-RI-111 - Abernethy 132kV Mesh Corner	Abernethy 132kV Mesh Corner			
Overview of Works				
At Abernethy 132/33kV substation, install a four	circuit breaker mesh corner. This will be			
connected to the existing Burghmuir – Charlestor	132kV double circuit overhead line (PCN/CAS).			
Project Completion Date	31/10/2022			
Summary of works in last quarter:				
On Hold				
Summary of works in next quarter:				
Project on hold.				
Additional Comments:				
N/A				



TORI	Scheme
SHET-RI-115 - Melgarve 400/132 kV Substation	Melgarve 400/132 kV Substation Additional
Additional SGTs	SGTs

At Melgarve substation (established under SHET-RI-085a and SHET-RI-085b), install an additional two 480MVA SGTs to enable the connection of wind generation in the area.

Project Completion Date	01/07/2026
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Summary of works in last quarter:

- Phasing of the works to be considered post Gate 1
- Progress designs and develop works information
- Route alignment for OHLs (overhead lines)
- Appoint consultant for GIS extensions

Summary of works in next quarter:

Following the termination of a Wind Farm connection in the area, systems studies concluded the two additional SGTs are no longer required. The project will be put on hold.

Additional Comments:		
N/A		
14//		



TORI	Scheme						
SHET-RI-116 - Kergord - Yell 132kV Connection	Kergord - Yell 132kV Connection						
Overview of Works	Overview of Works						
On Shetland install a new 132kV single circuit between the Kergord 132kV substation (established as part of SHET-RI-053) and a new 132kV switching station on Yell, to enable the connection of renewable generation.							
Project Completion Date	01/04/2026						
Summary of works in last quarter:	Summary of works in last quarter:						
Select Marine Survey supplier and place contract	Select Marine Survey supplier and place contract.						
Complete Geotechnical investigations.							
Summary of works in next quarter:							
Freeze design and submit planning applications							
Additional Comments:							
N/A							



TORI	Scheme
SHET-RI-117 - Tealing 275kV Busbar Upgrade	Tealing 275kV Busbar Upgrade

At Tealing remove the existing 275kV 2500A rated busbar and replace with a new 4000A rated 275kV double busbar complete with two bus couplers, one bus section and busbar selection on all feeder bays.

Project Completion Date	18/11/2022

Summary of works in last quarter:

Users current plan should have 2 out 3 circuits energised within the next quarter. All works are complete except for user circuit connections. Project has been delayed in completion due to user delayed in energisation

Summary of works in next quarter: All works have been completed now awaiting user to be ready to energise. Circuit 1 and 2 connection expected to be established in the quarter. HV testing of circuit 3 cable by user also expected to conclude.

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N/A



TORI	Scheme				
SHET-RI-119 - Corriemoillie Transformer	Corriemoillie Transformer Protection				
Protection Modification	Modification				
Overview of Works					
At the existing Corriemoillie substation, install a 3	3 ended grid transformer differential protection				
scheme on GT2 to enable the connection of a sec	cond generator at Corriemoillie.				
Project Completion Date	31/10/2024				
Summary of works in last quarter:					
Delivery team progressed with review and coord	ination with generator connection works. Works				
to progress to meet 2024 completion.					
Summary of works in next quarter:					
Continuing discussions on how best to proceed with project					
Additional Comments:					
N/A					



TORI	Scheme
SHET-RI-120 - East Coast 132kV Upgrade	East Coast 132kV Upgrade

Construct a new Grid Supply Point substation near Fiddes connected to the 275kV double circuit tower line XT1/XT2 between Kintore and Tealing.

Construct a new 132kV double circuit overhead line between Brechin and the Tealing/Arbroath/Brechin Tee Point.

Reconductor the existing double circuit tower line between Tealing and the Tealing/Arbroath/Brechin Tee Point.

Dismantle the existing Fiddes 132/33kV substation.

Dismantle the existing 132kV single circuit overhead line between the Craigiebuckler/Tarland/Fiddes Tee Point and the Brechin Substation.

Project Completion Date	31/10/2026
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Summary of works in last quarter:

Ongoing System Planning and Asset Management review of the overhead line options between Brechin and the Tealing/Arbroath/Brechin Tee Point.

Summary of works in next quarter:

Ongoing System Planning and Asset Management review of the overhead line options between Brechin and the Tealing/Arbroath/Brechin Tee Point.

Additional Comments:		
N/A		



Abernethy 132kV Reconductoring			
nothy 122k/ substation and			
nethy 132kV substation and			
red with a conductor capable of a			
On Hold.			
Summary of works in next quarter:			
Project on hold.			
•			
Additional Comments:			
N/A			



TORI	Scheme	
SHET-RI-123 - Shin - Loch Buidhe 132kV	Shin - Loch Buidhe 132kV Reconductoring	
Reconductoring		
Overview of Works		
Following the completion of SHET-RI-058, Shin substation will be radially connected into Loch		
	V double circuit. TORI-123 project is to reconductor	
	een Shin substation and Loch Buidhe substation. The	
double circuit should be reconductored with a	a minimum summer pre-fault rating of 190MVA.	
Project Consulation Date	24/42/2022	
Project Completion Date	31/12/2023	
Summary of works in last quarter:		
System Studies ongoing. Works to be considered alongside SHET-RI-058.		
Summary of works in next quarter:		
Continuing discussions on how best to proceed with project		
Additional Comments:		
N/A		
1		



TORI	Scheme	
SHET-RI-124 - 2nd Shetland HVDC Link Kergord	2nd Shetland HVDC Link Kergord -	
- Rothienorman	Rothienorman	
Overview of Works		
Construct a 2nd 600MW (tbc) HVDC link from Ke	rgord 132kV substation on Shetland (established	
under SHET-RI-053) to the Scottish mainland at a	·	
substation.		
Substation.		
The 600MW HVDC link will have approximately 2	6km of land cable and 220km of subsect cable	
The 600MW HVDC link will have approximately 3	okili di lalia cable alia 320kili di Subsea cable	
between Shetland and Rothienorman.		
Project Completion Date	31/10/2026	
Summary of works in last quarter:		
Project on hold.		
Summary of works in next quarter:		
Project on hold.		
Additional Comments:		
N/A		



TORI	Scheme	
SHET-RI-126 - Kergord - Yell 132kV 2nd	Kergord - Yell 132kV 2nd Connection	
Connection		
Overview of Works		
On Shetland install a new 2nd 132kV single circu	it between the Kergord 132kV substation	
(established as part of SHET-RI-053) and the Sou	th Yell Switching Station (constructed as part of	
SHET-RI-116), to enable the connection of renew	able generation.	
Project Completion Date	TBC if 2 nd circuit is required	
Summary of works in last quarter:		
Project on hold – not required at present.		
Summary of works in next quarter:		
Project on hold.		
Additional Comments:		
N/A		



TORI	Scheme
SHET-RI-127 - Dounreay - Spittal 400 kV Double	Dounreay - Spittal 400 kV Double Circuit Cable
Circuit Cable	

Establish two new 400kV double busbars, one at a new site close to Dounreay and the second close to Spittal. Construct approximately 15km of new 400kV double circuit underground cables from the new site close to Dounreay and Spittal. The new 400kV cable circuits should have a minimum summer rating of 1000MW on each circuit

Project Completion Date	31/10/2031	
Summary of works in last quarter:		

Summary of works in last quarter:

Project to enter the initial development stages alongside TORI 128.

Summary of works in next quarter:

TORI 127 to be updated to NOA7 refresh option DSDC (Dounreay 400kV substation, Thurso 400kV substation and 400kV OHL rebuild from Dounreay – Thurso – Spittal)

Additional Comments:	
N/A	
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TORI	Scheme		
SHET-RI-128 – Caithness to Peterhead HVDC			
Link	Caithness to Peterhead HVDC Link		
Overview of Works			
Transmission reinforcement works associated with the construction of a new HVDC link from the new Spittal 2 275 kV substation (delivered under TORI SHET-RI-153) to Peterhead 400 kV substation. The HVDC link is approximately 145 km from Spittal 2 to Peterhead (115 km subsea cable and 30 km underground cable). The works will be coordinated with the NOA recommendations			
Project Completion Date	31/10/2029		
Summary of works in last quarter:			
Begin initial project development works			
Summary of works in next quarter:	Summary of works in next quarter:		
TORI to be updated to 2 GW bi-pole HVDC link with metallic return as per NOA7 option.			
Additional Comments:			
N/A			



TORI Scheme

SHET-RI-129 - Farigaig SGT1 Upgrade Farigaig SGT1 Upgrade

Overview of Works

Upgrade the 120MVA 275/132kV SGT1 at Farigaig substation to a 240MVA SGT, to facilitate the connection of generation in the area.

Project Completion Date 01/07/2025

Summary of works in last quarter:

Re-design of civil works due to concerns / perceived risks regards ordering SGT1 from manufacturer.

Determine whether existing 275kV CB can be modified for point on wave switching. Confirm SGT protection scheme does not need to be replaced.

Summary of works in next quarter:

Internal governance milestone scheduled for August 2022.

Hand over to Base capex to progress to project to construction ready.

Additional Comments:

Completion date delayed due to wind farm developer delaying their proposed connection date to 01/07/2025.



TORI	Scheme
SHET-RI-130a - North Argyll - Craig Murrail	North Argyll - Craig Murrail 275kV Operation
275kV Operation	

Reinforce the network in the Argyll and Kintyre network to enable 275kV operation of the network from Creag Dhubh substation (established as part of SHET-RI-013) to Craig Murrail Substation. This will require the upgrade of An Suidhe and Crarae substations on this circuit for 275kV operation.

Project Completion Date	30/04/2027

Summary of works in last quarter:

Town & Country Planning Applications for An Suidhe 33kV/275kV and Crarae 33kV/275kV substations to be further developed.

Section 37 application for movement of towers on existing Inveraray to Crossaig overhead line to link to new substations to be further developed.

Framework tender (ITT) documentation to be developed.

Summary of works in next quarter:

Town & Country Planning Applications for An Suidhe 33kV/275kV and Crarae 33kV/275kV substations to be submitted.

Section 37 application for movement of towers on existing Inveraray to Crossaig overhead line to link to new substations to be submitted.

ITT documentation to be issued to Framework Contractors.

Additional Comments:	
N/A	



TORI	Scheme
SHET-RI-130b - Craig Murrail - Crossaig 275kV	Craig Murrail - Crossaig 275kV Operation
Operation	

Reinforce the network in the Argyll and Kintyre network to enable 275kV operation of the network from Craig Murrail substation to a new double busbar substation to be established at Crossaig.

Crossaig.	
Project Completion Date	30/04/2027

Summary of works in last quarter:

Town & Country Planning Application for Crossaig North 132kV/275kV substation to be further developed.

Section 37 application for movement of towers on existing Inveraray to Crossaig overhead line to link to new substation to be further developed.

Framework tender (ITT) documentation to be developed.

Summary of works in next quarter:

Town & Country Planning Application for Crossaig North 132kV/275kV substation to be submitted.

Section 37 application for movement of towers on existing Inveraray to Crossaig overhead line to link to new substation to be submitted.

ITT documentation to be issued to Framework Contractors.

Additional Comments:		
N/A		



TORI	Scheme		
SHET-RI-131 - Brechin 132kV Extension	Brechin 132kV Extension		
Overview of Works			
Construct 2 new circuit breakers at Brechin Grid S	Supply point.		
Project Completion Date	31/10/2024		
Summary of works in last quarter:			
Continue optioneering and project development alongside related reinforcement, SHET-RI-120.			
Summary of works in next quarter:			
Continue optioneering and project development alongside related reinforcement, SHET-RI-120.			
Additional Comments:			
N/A			



TORI	Scheme
SHET-RI-132 - Beauly-Blackhillock High	Beauly-Blackhillock High Temperature
Temperature Reconductoring	Reconductoring
Overview of Works	·

Reconductor the Beauly - Blackhillock 275 kV double circuit line with high temperature conductors. The circuits to be reconductored comprise the existing 275kV overhead lines between Beauly and Knocknagael, and between Knocknagael and Blackhillock.

The substation at Knocknagael is adjacent to the existing Foyers line tee point.		
Project Completion Date	30/07/2027	
Summary of works in last quarter:		
Initial optioneering works being prog	gressed by Development team.	
Summary of works in next quarter:		
Further system analysis being undertaken to ensure the correct solution and required rating increase is achieved.		
Additional Comments:		
N/A		



TORI	Scheme	
SHET-RI-133 - Loch Buidhe SGT Upgrade	Loch Buidhe SGT Upgrade	
Overview of Works		
Replacement of existing Loch Buidhe 240MVA 13	2/275kV SGTs with 480MVA units.	
Project Completion Date	30/07/2027	
Summary of works in last quarter:		
Initial development works to progress.		
Summary of works in next quarter:		
Continue project development.		
Additional Comments:		
N/A		



	·		
TORI	Scheme		
SHET-RI-134 – Beauly-Denny 2 nd Circuit upgrade	Beauly-Denny 2 nd Circuit upgrade from 275kV		
from 275kV to 400kV	to 400kV		
Overview of Works			
Upgrade the existing Beauly / Fasnakyle/ Fort Au	gustus / Tummel-Kinardochy / Braco West /		
Bonny Bridge 275kV circuit to 400kV, mirroring the	ne ratings of the existing 400kV circuit, along the		
route			
Project Completion Date	31/10/2029		
Summary of works in last quarter:	Summary of works in last quarter:		
Initial development and optioneering works to progress.			
Summary of works in next quarter:			
Continue Initial development and optioneering works			
Scope and programme validation and optioneering			
Determine Consenting strategies			
Additional Comments:			
N/A			



TORI	Scheme		
SHET-RI-135 - Edinbane 132kV Substation	Edinbane 132kV Substation		
Overview of Works			
Construct a 132kV Collector Switching Station at	Edinbane		
These works will include provision of reactive con	npensation equipment to accommodate		
additional generation onto the Skye 132kV syster	n.		
Project Completion Date	31/07/2026		
Summary of works in last quarter:			
Work to progress on optioneering and preparation of MSIP submission to Ofgem.			
Summary of works in next quarter:			
Continued development of optioneering scope.	Continued development of optioneering scope.		
Additional Comments:			
N/A			



TORI	Scheme		
SHET-RI-136 - Blackhillock 400kV Building	Blackhillock 400kV Building Extension		
Extension			
Overview of Works			
Extend existing Blackhillock 400kV GIS building t	Extend existing Blackhillock 400kV GIS building to allow space provision for additional bays.		
	T a + /aa /aaa +		
Project Completion Date	31/08/2024		
Summary of works in last quarter:			
Initial development and optioneering works to p	orogress.		
Connection requirements have been reviewed and change request is needed to reflect revised completion date, with completion of building needed for equipment to be installed and			
			connections to be commissioned in 2030 (rather than 2025).
Summary of works in next quarter:			
High level optioneering to confirm required footprint and OHL routing to determine if building will			
fit within existing site compound. Programme to be updated to reflect findings.			
Additional Comments:			
N/A			
,			



TORI	Scheme
SHET-RI-137 - Blackhillock-New Deer-Peterhead	Blackhillock-New Deer-Peterhead 400kV OHL
400kV OHL	

Establish a new 400kV double circuit overhead line from Blackhillock to New Deer (60km) and New Deer to Peterhead (22km).

Project Completion Date	31/10/2031

Summary of works in last quarter:

Continuation of high-level project development, along with initial internal governance activities. WSP developed constraint mapping and starting to identify corridor options.

Summary of works in next quarter:

Corridors to be developed with supporting documentation prepared for Stakeholder Consultation at the end of next quarter.

Additional Comments:

Project is being developed in parallel to SHET-RI-007a Beauly - Blackhillock 400kV OHL with shared project team.

Project is to connect to proposed 'New Deer 2' 400kV substation, site selection to be developed in separate project, with SHET-RI-137 engaging closely.



TORI	Scheme	
SHET-RI-138 - New Deer 400kV Busbar	New Deer 400kV Busbar Extension	
Extension		
Overview of Works		
Extend 400kV double busbar to form 3-section busbar at New Deer 400kV Substation.		
Project Completion Date	31/10/2033	
Summary of works in last quarter:		
Initial high-level project development, along with initial internal governance activities for project		
inception.		
Summary of works in next quarter:		
Continuation of high-level project development, along with initial internal governance activities.		
Additional Comments:		
N/A		



TORI	Scheme	
SHET-RI-139 - 2GW HVDC Link New Deer to	2GW HVDC Link New Deer to England	
England		
Overview of Works		
Install an indoor 2GW HVDC converter station wi	th associated equipment at New Deer Substation.	
HVDC cables to be routed into the sea and then south towards England (landing point to be		
confirmed). This will be a joint project with National Grid.		
Project Completion Date	31/10/2033	
Summary of works in last quarter:		
Initial development and optioneering works to progress.		
Summary of works in next quarter:		
Continuation of high-level project development, along with initial internal governance activities.		
Additional Comments:		
N/A		



TORI	Scheme	
SHET-RI-140 - Thurso South 275 kV Substation	Thurso South 275 kV Substation	
Redevelopment	Redevelopment	
Overview of Works		
Redevelop the existing Thurso South 275 kV substation into a new 275 kV double busbar		
arrangement.		
Project Completion Date	01/06/2025	
Project Completion Date	01/06/2025	
Summary of works in last quarter:		
Project on hold.		
Summary of works in next quarter:		
Project on hold.		
Additional Comments:		
N/A		



TORI	Scheme	
SHET-RI-141 - Spittal to New Deer HVDC Link	Spittal to New Deer HVDC Link	
Overview of Works		
Create an HVDC link between Spittal and New Deer.		
Project Completion Date	31/10/2031	
Summary of works in last quarter:		
Project requirement being assessed.		
Summary of works in next quarter:		
Reinforcement options to be re-assessed post HND.		
Additional Comments:		
N/A		



TORI	Scheme		
SHET-RI-142 - Caithness to New Deer 2 - 2 x	Caithness to New Deer 2 - 2 x 1GW HVDC Links		
1GW HVDC Links			
Overview of Works			
Construct 2 x 1GW HVDC links from Spittal to New Deer 2, including converter stations and			
associated equipment.			
	24/40/2024		
Project Completion Date	31/10/2031		
Summary of works in last quarter:			
Coordination required with ScotWind and Offshore Transmission Network Review workstream.			
Summary of works in next quarter:			
Reinforcement options to be re-assessed post HND.			
Additional Comments:			
N/A			



TORI	Scheme
SHET-RI-143 - Kergord - Gremista GSP 132kV	Kergord - Gremista GSP 132kV Infrastructure
Infrastructure	
Overview of Works	
Construct a new 132kV 24km circuit between Ke	rgord substation and Gremista GSP, terminated
onto new 132kV feeder bays at Kergord and Gre	mista. Construct a new Tee point for the
connection of a wind farm.	
	1 1 1
Project Completion Date 30/04/2025	
Summary of works in last quarter:	
Continue to progress development works	
Completion of Ground Investigation works	
Gremista planning permission granted	
Summary of works in next quarter:	
SHEPD start civils works at Gremista to construct	: Grid Supply Point platform base
S37 consultation period completes for OHL	
Additional Comments:	
N/A	



TORI
SHET-RI-144 - New Deer 2 400kV Substation

Overview of Works
Establish a new 400kV substation close to the proposed New Deer 400kV substation and tie in the proposed 400kV circuits from New Deer to Peterhead.

Project Completion Date

31/10/2033

Summary of works in last quarter:
Initial development and optioneering works to progress.

Summary of works in next quarter:
Continuation of high-level project development, along with initial internal governance activities.

Additional Comments:

N/A



TORI	Scheme
SHET-RI-145 - 2GW HVDC Link New Deer 2 to	2GW HVDC Link New Deer 2 to England
England	
Overview of Works	
Install an indoor 2GW HVDC converter station wi	th associated equipment at New Deer 2
Substation. HVDC cables to be routed into the se	a and then south towards England (landing point
to be confirmed). This will be a joint project with	National Grid.
Project Completion Date	31/10/2033
Summary of works in last quarter:	
Initial development and optioneering works to pr	ogress.
Summary of works in next quarter:	
Continuation of high-level project development,	along with initial internal governance activities.
Additional Comments:	
N/A	



TORI	Scheme
SHET-RI-147 - Tealing 400kV Substation	Tealing 400kV Substation
Overview of Works	
Establish a new 400kV substation close to the exist	sting Tealing 275kV Substation.
Project Completion Date	31/10/2031
Summary of works in last quarter:	
Initial development and optioneering works to pr	ogress.
Summary of works in next quarter:	
Continuation of high-level project development, a	along with initial internal governance activities.
Additional Comments:	
N/A	



TORI	Scheme
SHET-RI-148 - Alyth – Tealing 400kV	Alyth – Tealing 400kV Reinsulation
Reinsulation	
Overview of Works	
Re-insulate the 275kV double circuit overhead	ine between Alyth and Tealing for 400kV
operation.	
Project Completion Date	31/10/2031
Summary of works in last quarter:	
Continuation of high-level project development	t, along with initial internal governance activities.
Summary of works in next quarter:	
Continuation of high-level project development	t, along with initial internal governance activities.
Additional Comments:	
N/A	



TORI	Scheme	
SHET-RI-149 - Tealing – Glenrothes Westfield	Tealing – Glenrothes Westfield 400kV Rebuild	
400kV Rebuild		
Overview of Works		
Rebuild the 275kV double circuit overhead line between Tealing and Glenrothes-Westfield for		
400kV operation.		
Project Completion Date 31/10/2031		
Summary of works in last quarter:		
Continuation of high-level project development, along with initial internal governance activities.		
Summary of works in next quarter:		
	along with initial internal governance activities	
Continuation of high-level project development, along with initial internal governance activities.		
Additional Comments:		
N/A		



TORI	Scheme
SHET-RI-150 - Inverguie Tee – Peterhead 132kV Reconductoring	Inverguie Tee – Peterhead 132kV Reconductoring
Oceanies of Mente	

Overview of Works

Reconductor approximately 6.7km of 132kV OHL between The Inverguie Tee and Peterhead 132kV substation. The circuit should be reconductored with a conductor capable of a minimum summer pre-fault rating of 226MVA.

Project Completion Date	31/10/2029	
Summary of works in last quarter:		

Continuation of high-level project development, along with initial internal governance activities.

Summary of works in next quarter:

Continuation of high-level project development, along with initial internal governance activities.

Additional Comments:	
N/A	
N/A	



TORI	Scheme
SHET-RI-151 - Peterhead – St Fergus 132kV Line	Peterhead – St Fergus 132kV Line Works
Works -	
Overview of Works	
Overhead line works to bring the 132kV circuit to	ground, including any required modifications.
Design and installation of one 132kV circuit break	ker with three 132kV disconnectors and
associated protection and control equipment for	each of the two circuits.
Project Completion Date	31/10/2029
Summary of works in last quarter:	
Initial high-level project development, along with	initial internal governance activities for project
inception.	
Summary of works in next quarter:	
Initial high-level project development, along with	initial internal governance activities for project
inception.	
Additional Comments:	
N/A	



TORI
SHET-RI-153 - Spittal 2 275 kV Substation

Overview of Works
Construct a new 275 kV substation 'Spittal 2' close to the existing Spittal 275 kV substation in Caithness.

Project Completion Date
Summary of works in last quarter:
Initial project development works to commence.

Summary of works in next quarter:
Continue to develop options post HND

Additional Comments:
N/A



	Scheme
SHET-RI-155 - Peterhead - Persley Tee 275kV	Peterhead - Persley Tee 275kV Works
Works	
Overview of Works	
Overhead line works to bring the VP 275kV over	head line circuit to ground, including any required
tower modifications. Design and installation of	one 275kV bus bar including a circuit breaker with
four 275kV disconnectors and associated protection	ction and control equipment.
Project Completion Date	21/05/2027
Project Completion Date	31/05/2027
Summary of works in last quarter:	
Initial high-level project development, along wit	h initial internal governance activities for project
inception.	
•	
Summary of works in next quarter:	
Summary of works in next quarter: Continuation of high-level project development	along with initial internal governance activities.
	, along with initial internal governance activities.
	, along with initial internal governance activities.
	, along with initial internal governance activities.
Continuation of high-level project development	, along with initial internal governance activities.
Continuation of high-level project development Additional Comments:	, along with initial internal governance activities.



TORI	Scheme	
SHET-RI-165 - Alcemi Substation 400kV	Alcemi Substation 400kV Switchgear	
Switchgear		
Overview of Works		
Overhead line works to bring the 400kV circuit t	to ground, including any required modifications.	
Design and installation of one 400kV circuit brea	aker with three 400kV disconnectors and	
associated protection and control equipment for	or the circuit.	
Project Completion Date	mpletion Date 31/10/2029	
Summary of works in last quarter:		
Initial high-level project development, along wit	th initial internal governance activities for project	
inception.		
Summary of works in next quarter:		
Continuation of high-level project development, along with initial internal governance activities.		
Additional Comments:		
N/A		



SHET-RI-166 - Tealing – Arbroath 132kV Line	Tealing – Arbroath 132kV Line Works
Works	
Overview of Works	
Overhead line works to bring the 132kV circuit to	ground, including any required modifications.
Design and installation of one 132kV circuit breaker with two 132kV disconnectors and associated	
protection and control equipment.	
	1 ((
Project Completion Date	30/04/2026
Summary of works in last quarter:	
Continuation high-level project development, along with initial internal governance activities.	
Summary of works in next quarter:	
Summary of works in next quarter: Continuation of high-level project development,	
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•	
•	
Continuation of high-level project development,	



TORI	Scheme
SHET-RI-167 - Keith 275kV Sync Comp	Keith 275kV Sync Comp
Overview of Works	
Installation of a new 275kV disconnector switch on the 275kV cable circuit side of the 275/132kV	
Super Grid Transformer at Keith substation.	
Project Completion Date	01/08/2024
Summary of works in last quarter:	
Continuation of high-level project development, along with initial internal governance activities.	
Summary of works in next quarter:	
Continuation of high-level project development, along with initial internal governance activities.	
Additional Comments:	
N/A	



TORI	Scheme	
SHET-RI-168 - Melvich to Connagill 132kV	Melvich to Connagill 132kV Connection	
Connection		
Overview of Works		
Transmission reinforcement works associated with the construction of a new 5.2 km, 132 kV overhead line between Melvich Community wind farm 132/33 kV substation and Connagill		
		substation. The works include the connection t
busbar at Melvich Community Wind Farm.		
Project Completion Date	31/10/2027	
Summary of works in last quarter:	1 ' '	
Begin initial development works		
Summary of works in payt quarters		
Summary of works in next quarter:		
Continue to develop as part of the wider conne	ection options into Connagill	
•	ection options into Connagill	
•	ection options into Connagill	
Continue to develop as part of the wider conne	ection options into Connagill	
Continue to develop as part of the wider connection. Additional Comments:	ection options into Connagill	
Continue to develop as part of the wider connection. Additional Comments:	ection options into Connagill	