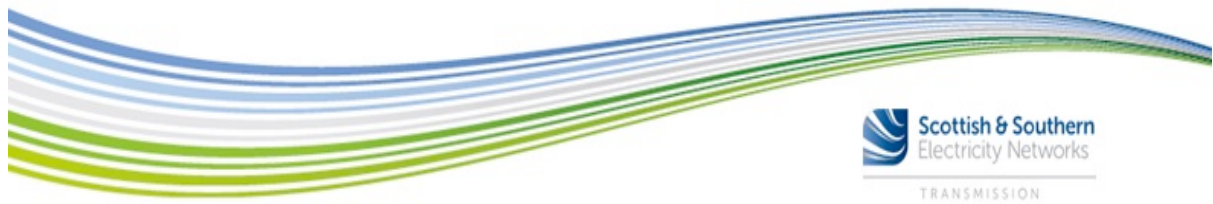


Transmission Owner Reinforcement Instruction (TORI) Quarterly Update Report Q1 January 2022 – March 2022

March 2022



Transmission Owner Reinforcement Instruction (TORI)

Quarterly Update Report Q1

January 2022 – March 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



Table of Contents

SHET-RI-007a - Beauly - Blackhillock 400 kV Double Circuit OHL.....	6
SHET-RI-007b - Beauly 400 kV Busbar.....	7
SHET-RI-009 - East Coast Onshore 275kV Upgrade	8
SHET-RI-013 - North Argyll Substation.....	9
SHET-RI-019 - Dounreay - Orkney 220kV Subsea HVAC Cable Link 1.....	10
SHET-RI-020 - Dounreay - Orkney 220kV Subsea HVAC Cable Link 2.....	11
SHET-RI-025a - Peterhead-Rothienorman 400 kV OHL upgrade.....	12
SHET-RI-025b - Eastern Subsea HVDC Link	13
SHET-RI-025c - Peterhead 400 kV Busbar	14
SHET-RI-025d - North East Reinforcement	15
SHET-RI-026 - Blackhillock 275 kV QBs	16
SHET-RI-028 – Thurso South to Gills Bay 132kV OHL.....	17
SHET-RI-033 - Second 2 GW East Coast HVDC Link Peterhead to England	18
SHET-RI-042 - Western Isles - Beauly HVDC Link	19
SHET-RI-043 - Lewis Infrastructure	20
SHET-RI-046 - Taynuilt-North Argyll Rebuild.....	21
SHET-RI-050a - Inveraray - Port Ann Reinforcement	22
SHET-RI-050b - Port Ann - Crossaig Reinforcement.....	23
SHET-RI-052 - Lairg-Loch Buidhe 132kV Reinforcement.....	24
SHET-RI-053 - Shetland 600 MW HVDC Link and Kergord 132kV Substation	25
SHET-RI-058 - Beauly-Loch Buidhe 275kV OHL Reinforcement	26
SHET-RI-059 - Third 2GW East Coast HVDC Link Peterhead to England	27
SHET-RI-061 - Skye Overhead Line Reinforcement.....	28
SHET-RI-064 - Fort Augustus Substation 400/132kV Development.....	29
SHET-RI-065a - Beauly 132 kV Substation Redevelopment	30
SHET-RI-065b - Beauly 3rd SGT Replacement.....	31
SHET-RI-066 - Fort Augustus Substation 400/275kV Development.....	32
SHET-RI-068 - Fort Augustus -Invergarry-400/132kV Development.....	33
SHET-RI-069 - Kinardochoy Reactive Compensation	34

SHET-RI-072 - Blackhillock-Kintore 400 kV OHL Upgrade	35
SHET-RI-075 - Orkney 132kV Infrastructure Finstown - Ellibster	36
SHET-RI-079 - Blackhillock Additional 275/132kV SGTs	37
SHET-RI-086 - Craig Murrail Switching Station.....	38
SHET-RI-088 - Loch Buidhe - Dounreay 275kV Reinforcement	39
SHET-RI-089 - Farigaig SGT2 Upgrade	40
SHET-RI-090 - Coupar Angus - Errochty 132kV Reconductoring	41
SHET-RI-093 - East Coast Phase 2 - 400kV Reinforcement.....	42
SHET-RI-098 - Dunoon GL1-GL2 OHL Rebuild	43
SHET-RI-105 - Rothienorman s/s & Rothienorman - Kintore Reconductoring.....	44
SHET-RI-106b - Connagill 2nd SGT	45
SHET-RI-107 - North Argyll - Inveraray Reinforcement.....	46
SHET-RI-109 - Loch Buidhe - Spittal 132kV Reconductoring	47
SHET-RI-111 - Abernethy 132kV Mesh Corner.....	48
SHET-RI-115 - Melgarve 400/132 kV Substation Additional SGTs.....	49
SHET-RI-116 - Kergord - Yell 132kV Connection.....	50
SHET-RI-117 - Tealing 275kV Busbar Upgrade	51
SHET-RI-119 - Corriemoillie Transformer Protection Modification	52
SHET-RI-120 - East Coast 132kV Upgrade	53
SHET-RI-121 - Charleston - Abernethy 132kV Reconductoring.....	54
SHET-RI-123 - Shin - Loch Buidhe 132kV Reconductoring	55
SHET-RI-124 - 2nd Shetland HVDC Link Kergord - Rothienorman.....	56
SHET-RI-126 - Kergord - Yell 132kV 2nd Connection	57
SHET-RI-127 - Dounreay - Spittal 400 kV Double Circuit Cable	58
SHET-RI-128 – Caithness to Peterhead HVDC Link.....	59
SHET-RI-129 - Farigaig SGT1 Upgrade	60
SHET-RI-130a - North Argyll - Craig Murrail 275kV Operation.....	61
SHET-RI-130b - Craig Murrail - Crossaig 275kV Operation.....	62
SHET-RI-131 - Brechin 132kV Extension.....	63
SHET-RI-132 - Beaully-Blackhillock High Temperature Reconductoring	64
SHET-RI-133 - Loch Buidhe SGT Upgrade.....	65
SHET-RI-134 – Beaully-Denny 2 nd Circuit upgrade from 275kV to 400kV	66
SHET-RI-135 - Edinbane 132kV Substation	67
SHET-RI-136 - Blackhillock 400kV Building Extension	68
SHET-RI-137 - Blackhillock-New Deer-Peterhead 400kV OHL.....	69
SHET-RI-138 - New Deer 400kV Busbar Extension.....	70

SHET-RI-139 - 2GW HVDC Link New Deer to England	71
SHET-RI-140 - Thurso South 275 kV Substation Redevelopment.....	72
SHET-RI-141 - Spittal to New Deer HVDC Link	73
SHET-RI-142 - Caithness to New Deer 2 - 2 x 1GW HVDC Links	74
SHET-RI-143 - Kergord - Gremista GSP 132kV Infrastructure	75
SHET-RI-144 - New Deer 2 400kV Substation	76
SHET-RI-145 - 2GW HVDC Link New Deer 2 to England	77
SHET-RI-147 - Tealing 400kV Substation.....	78
SHET-RI-148 - Alyth – Tealing 400kV Reinsulation.....	79
SHET-RI-149 - Tealing – Glenrothes Westfield 400kV Rebuild.....	80
SHET-RI-150 - Inverguie Tee – Peterhead 132kV Reconductoring.....	81
SHET-RI-151 - Peterhead – St Fergus 132kV Line Works -	82
SHET-RI-153 - Spittal 2 275 kV Substation	83
SHET-RI-155 - Peterhead - Persley Tee 275kV Works	84
SHET-RI-165 - Alcemi Substation 400kV Switchgear.....	85
SHET-RI-166 - Tealing – Arbroath 132kV Line Works.....	86
SHET-RI-167 - Keith 275kV Sync Comp	87
SHET-RI-168 - Melvich to Connagill 132kV Connection	88



TORI SHET-RI-007a - Beauly - Blackhillock 400 kV Double Circuit OHL	Scheme Beauly - Blackhillock 400 kV Double Circuit OHL
Overview of Works Establish a new double circuit 400kV overhead line approximately 130km 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
Summary of works in last quarter: Initial optioneering works continued and planned coordination with other Beauly Strategic projects.	
Summary of works in next quarter: Optioneering works continued and planned coordination with other Beauly Strategic projects.	
Additional Comments: N/A	



TORI SHET-RI-007b - Beauly 400 kV Busbar	Scheme Beauly 400 kV Busbar
Overview of Works Construct a new 400kV GIS double busbar at Beauly substation and interface with the existing 275kV busbar. The 400kV double busbar is to comprise 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: See TORI-042	
Additional Comments:	



TORI SHET-RI-009 - East Coast Onshore 275kV Upgrade	Scheme East Coast Onshore 275kV Upgrade
Overview of Works 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.	
Project Completion Date	31/10/2023
Summary of works in last quarter: OHL Works (LT162): Returned in January 2022 to complete all remaining Compression joint testing. All works and testing now completed to allow higher operational temperature. Alyth Substation Works (LT139): Continued to progress with the Civil works on the Substation site, with structural steelwork for both the GIS & Statcom building complete and foundations being installed for GIB and AIS plant items across the site. Tealing Substation: Phase Shifting Transformer works now with Delivery team.	
Summary of works in next quarter: OHL Works (LT162): No works planned for the next quarter. Alyth Substation Works (LT139): Continue to progress with the construction of both the GIS & Statcom buildings as well as the wider site civil works, aiming to complete the installation of all foundations and internal access roads. Oversee the installation of the DNO supply. Tealing Substation (LT208): Develop design works and progress programme. All works are on course for completion by 31/10/23.	
Additional Comments: N/A	



TORI SHET-RI-013 - North Argyll Substation	Scheme North Argyll Substation
Overview of Works 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 Creag Dhubh (North Argyll) substation and Dalmally Substations.	
Project Completion Date	30/04/2025
Summary of works in last quarter: Scottish Government's EIA Scoping Option received.	
Summary of works in next 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 to be submitted.	
Additional Comments: N/A	



TORI SHET-RI-019 - Dounreay - Orkney 220kV Subsea HVAC Cable Link 1	Scheme Dounreay - Orkney 220kV Subsea HVAC Cable 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.	
Additional Comments: N/A	



TORI SHET-RI-020 - Dounreay - Orkney 220kV Subsea HVAC Cable Link 2	Scheme Dounreay - Orkney 220kV Subsea HVAC Cable Link 2
Overview of Works Establish a second 220kV Subsea 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. 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	



TORI SHET-RI-025a - Peterhead-Rothienorman 400 kV OHL upgrade	Scheme Peterhead-Rothienorman 400 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 SHET-RI-025b - Eastern Subsea HVDC Link	Scheme 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: PQQ issued to the market Town & Country Planning Application for Peterhead HVDC converter station submitted. Marine Planning Application for offshore HVDC cable submitted. Preparing Marine Consents Application FNC submitted and SQs received GI works commenced at Peterhead Converter Station location Land negotiations in Peterhead ongoing Continuation of tendering documentation and ready for submission in Q2 2022.	
Summary of works in next quarter: Receive and review PQQ responses Complete GI works at Peterhead All marine survey deliverables complete Establish integrated delivery team Agree Head of Terms for Land in Peterhead Submit Marine License Application	
Additional Comments: N/A	



TORI SHET-RI-025c - Peterhead 400 kV Busbar	Scheme Peterhead 400 kV Busbar
<p>Overview of Works</p> <p>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.</p> <p>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.</p>	
Project Completion Date	31/10/2023
<p>Summary of works in last quarter:</p> <p>Roof cladding to SGT4, SGT5 and GIS complete, wall cladding completed on SGT4 and GIS -SGT5 60% completed.</p> <p>Large concrete pours to upper and lower GIS hall floor. SGT4 and SGT5 bund base, walls and all plinths poured, water tests complete and passed.</p> <p>Surfacing contractor commenced December 2021 to carry out surfacing works on Substation perimeter roads, and further concrete pours to substation perimeter road opposite transformer doorways, completed.</p> <p>275kV ducting works between the new and existing substation have been delayed due to design derogations.</p> <p>completion of new Overhead Line Tower 90 and 91 foundations.</p> <p>A90 road works commenced on 8th Nov 2021 and complete on 23rd of December with the exception of white lining which was carried out w/c 17th January 2022.</p>	
<p>Summary of works in next quarter:</p> <p>Wall cladding, louvers, flashing and external doors to be completed on SGT4 and SGT5 buildings.</p> <p>Delivery of General Electric SGTs on 8th March 2022 and 3rd April 2022 prior to GE works commencing, installation of cooler banks, transformers, and commissioning.</p> <p>BBPTD hand over of GIS building prior to GIS and GIB equipment delivery, installation and commissioned by HITACHI, commencing May 2022.</p> <p>Completion of steel erection of Tower 90 and 91 for new Overhead Line is expected.</p> <p>275kV ducting will continue after full design route derogation has been agreed from New 400kV Substation to existing 275kV Substation.</p> <p>Complete installation of AIS plant 275kV-400kV prior to stage one commissioning Jan 2023.</p> <p>Planting and grass seeding around perimeter soil bunds.</p>	
<p>Additional Comments:</p> <p>N/A</p>	



TORI SHET-RI-025d - North East Reinforcement	Scheme North East Reinforcement
<p>Overview of Works 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.</p>	
Project Completion Date	31/10/2023
<p>Summary of works in last quarter:</p> <p>OHL Works – Works to commence on NDR1, the first circuit between New Deer and Rothienorman. Contract award for the Substation scope of Works.</p> <p>Kintore Substation Works – Completion of the bulk earthworks to achieve a level platform 800mm below finished level, Completion of building foundations and commencement of building steelwork erection, continued development of the overall substation design, progression of transformer noise enclosure design, continuation of design for the substation protection and control system.</p>	
<p>Summary of works in next quarter:</p> <p>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.</p> <p>Rothienorman Substation Works – Works to commence on site</p>	
<p>Additional Comments: N/A</p>	



TORI SHET-RI-026 - Blackhillock 275 kV QBs	Scheme Blackhillock 275 kV QBs
Overview of Works At Blackhillock, install 2 x 865MVA (continuous rating) 275kV quadrature boosters with bypass on the existing 275kV circuits (AH1/HO2) to Knocknagael, rearranging the circuit terminations as appropriate.	
Project Completion Date	31/10/2026
Summary of works in last quarter: Continued with Design development work on the project alongside the East Coast 400kV upgrade works in line with programme dates.	
Summary of works in next quarter: 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.	
Additional Comments: N/A	



TORI SHET-RI-028 – Thurso South to Gills Bay 132kV OHL	Scheme Thurso South to Gills Bay 132kV OHL
Overview of Works It is proposed to construct a new 132kV GIS double 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 line and underground cable double circuit, operated at 132kV, from Gills Bay to Thurso South.	
Project Completion Date	31/03/2026
Summary of works in last quarter: Expected consent decision for switching station 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: 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).	
Additional Comments: N/A	



TORI SHET-RI-033 - Second 2 GW East Coast HVDC Link Peterhead to England	Scheme Second 2 GW East Coast HVDC Link Peterhead to England
Overview of Works Install an indoor 2GW HVDC converter station with associated equipment. 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	31/10/2031
Summary of works in last quarter: Continued development of initial needs case scope.	
Summary of works in next quarter: Continued development of initial needs case scope.	
Additional Comments: N/A	



TORI SHET-RI-042 - Western Isles - Beaully HVDC Link	Scheme Western Isles - Beaully 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 Beaully (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 Beaully.	
Project Completion Date	30/03/2027
Summary of works in last quarter: Continued EA at Arnish Preparations ongoing for Public Consultation for Arnish Site Continued Phase 2 Detailed Site Assessment for mainland convertor station Preferred site for Mainland Convertor Station identified Preparations ongoing to engage with Statutory Stakeholders and present preferred site	
Summary of works in next quarter: Hold Major Pre-App meeting with the Highland Council Mainland convertor station Public Consultation Progress Environmental Impact Assessment at Mainland Convertor Station Re-validation of cable routing Agree Heads of Terms with HIE CBA update Preparation of Final Needs Case	
Additional Comments: N/A	



TORI SHET-RI-043 - Lewis Infrastructure	Scheme Lewis Infrastructure
Overview of Works Build a new 132kV single circuit OHL between existing Stornoway substation, the new Arnish substation (provided under SHET-RI-042 - Western Isles - Beaully 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.	
Project Completion Date	30/03/2027
Summary of works in last quarter: Discussions on how best to proceed with project continued.	
Summary of works in next quarter: Discussions on how best to proceed with project continued.	
Additional Comments: N/A	



TORI SHET-RI-046 - Taynuilt-North Argyll Rebuild	Scheme Taynuilt-North Argyll Rebuild
Overview of Works Reinforce the transmission network between Taynuilt and North Argyll substation (established as part of SHET-RI-013). Rebuild approximately 12.5km of existing 132kV double circuit steel tower line between North Argyll and Taynuilt with a larger 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 SHET-RI-050a - Inveraray - Port Ann Reinforcement	Scheme Inveraray - Port Ann Reinforcement
Overview of Works Reinforce the 132kV Transmission network in the Kintyre Peninsula. Rebuild approximately 37km of double circuit OHL between Inveraray and Port Ann. The towers will be built for 275kV operation, but initially operated at 132kV.	
Project Completion Date	30/07/2021
Summary of works in last quarter: Completion of final reinstatement snags.	
Summary of works in next quarter Project complete.	
Additional Comments: N/A	



TORI SHET-RI-050b - Port Ann - Crossaig Reinforcement	Scheme Port Ann - Crossaig 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 operation, but initially operated at 132kV.	
Project Completion Date	31/10/2023
Summary of works in last quarter: Scottish Woodlands are nearing completion of the operational corridor timber felling and will hand over control of all sections to Balfour Beatty for construction access. However Scottish Woodlands will remobilise in 2022 to complete management felling and felling of isolated pockets of timber that require access to be built by Balfour Beatty. Balfour Beatty will continue installation of access tracks, tower foundations and will commence tower erection.	
Summary of works in next quarter: Timber felling and extraction activities will be nearing completion. The construction of access tracks and tower foundations will continue in line with programme. The second double circuit substation outages works will commence and the first OHL towers will start being topped out from the 25 th April 2022.	
Additional Comments: N/A	



TORI SHET-RI-052 - Lairg-Loch Buidhe 132kV Reinforcement	Scheme Lairg-Loch Buidhe 132kV Reinforcement
Overview of Works 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	30/04/2022
Summary of works in last quarter: Completion of the construction on site for the new substation and OHL. Commence Stage 1 commissioning and prepare for Stage 2 (final) commissioning.	
Summary of works in next quarter: Close out of any outstanding constructions works and completion of the substation access road & landscaping of the surrounding areas. Completion of the Stage 2 (final) commissioning and energisation.	
Additional Comments: N/A	



TORI SHET-RI-053 - Shetland 600 MW HVDC Link and Kergord 132kV Substation	Scheme 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 13km of land cable and 284km of subsea cable between Shetland and the HVDC switching station in Caithness.	
Project Completion Date	01/07/2024
Summary of works in last quarter: Completion of all superstructure works including substantial completion of cladding at both sites. Continue Building Services M&E installation at both sites. Commenced HVDC land Cable installation and jointing in Caithness and Shetland and HVDC Cable termination installation at Noss Head. Commenced Hitachi Energy HVDC installation activities at Kergord. Offshore – complete c90% of boulder clearance.	
Summary of works in next quarter: Noss Head DC Switching Station: Substantially complete civil works and HVDC cable installation works and commence HVDC equipment installation Kergord HVDC Converter: Continue HVDC equipment installation, complete HVDC cable and termination installation. Continue M&E /building services installation and civil works. Offshore: Complete Pre Lay Grapnel Run and boulder clearance activities and prepare for Campaign 1 (of 3) Offshore HVDC cable installation – c 100km. Continue manufacturing Offshore DC Cable	
Additional Comments: N/A	



TORI SHET-RI-058 - Beauly-Loch Buidhe 275kV OHL Reinforcement	Scheme Beauly-Loch Buidhe 275kV OHL 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 circuit steel lattice tower construction approximately 40km, as well as works at Beauly, Loch Buidhe 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: Review strategic options and continue early option development.	
Additional Comments: N/A	



TORI SHET-RI-059 - Third 2GW East Coast HVDC Link Peterhead to England	Scheme Third 2GW East Coast HVDC Link Peterhead to England
Overview of Works Install an indoor 2GW HVDC converter station with associated equipment. 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: Project on hold.	
Summary of works in next quarter: Project on hold.	
Additional Comments: N/A	



TORI SHET-RI-061 - Skye Overhead Line Reinforcement	Scheme Skye Overhead Line 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 Date	31/12/2025
Summary of works in last quarter: Continue with land options on preferred OHL alignment, finalise draft EIA, conclude on site survey works Engage with Ofgem and stakeholders on the INC consultation.	
Summary of works in next quarter: Continue with land options on preferred OHL alignment, finalise draft EIA and undertake legal review, Engage with Ofgem and stakeholders on the FNC submission.	
Additional Comments: N/A	



TORI SHET-RI-064 - Fort Augustus Substation 400/132kV Development	Scheme Fort Augustus Substation 400/132kV Development
Overview of Works Develop the existing Fort Augustus substation to include a new 400kV and a new 132kV busbar. The new 400kV busbar is to be connected to the new 132kV busbar via two new 480MVA 400/132kV Super grid transformers.	
Project Completion Date	22/03/2022
Summary of works in last quarter: The two new 400/132kV Super grid transformers and 132kV busbar have been commissioned and are energised. The circuit transfer of the Fort Augustus - Glen Morrison is also complete and energised.	
Summary of works in next quarter: The second and final transfer circuit transfer, Fort Augustus – Cennacroc, is underway and due for completion in the next week.	
Additional Comments: N/A	



TORI SHET-RI-065a - Beauly 132 kV Substation Redevelopment	Scheme Beauly 132 kV Substation 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	
Project Completion Date	31/10/2024
Summary of works in last quarter: Project has passed through Gate 2 and been handed from the Development to the Delivery Team. Planning Permission has been submitted and works are progressing on the CPO that may be required to secure the land and access. GIS Framework has gone to BAFO and the Beauly project is being used in the Framework as a certain view project that will be assigned on the appointment of the framework contractors.	
Summary of works in next quarter: Framework and Design Contract to be awarded, Initial Design completed and submitted for review by SSEN Engineering. Conclude and start the CPO proceedings. Undertake SHE / Risk Reviews and Lessons Learned following the refinement process between Gate 2 and 3 in preparation for PAR and Gate 3.	
Additional Comments: N/A	



TORI SHET-RI-065b - Beauly 3rd SGT Replacement	Scheme Beauly 3rd SGT Replacement
Overview of Works Replacement of third existing 275/132kV 120MVA SGT with a new 360MVA 275/132kV transformer. SHET-RI 065a covers establishment of a new 132kV double busbar arrangement at Beauly substation, and transfer the circuits from the existing 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: See TORI-065a	
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 completion date.	



TORI SHET-RI-066 - Fort Augustus Substation 400/275kV Development	Scheme Fort Augustus Substation 400/275kV Development
Overview of Works Develop the existing Fort Augustus substation to include a new 275kV busbar. The 275kV busbar is connected to the 400kV busbar via two 1200MVA 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 SHET-RI-068 - Fort Augustus -Invergarry-400/132kV Development	Scheme Fort Augustus -Invergarry-400/132kV Development
Overview of Works 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.	
Project Completion Date	31/10/2027
Summary of works in last quarter: Establish corridors for OHL. Continue engaging with key stakeholders, including landowners and community. Undertake site selection works for substation in the vicinity of Invergarry.	
Summary of works in next quarter: Prepare and issue Consultation Documents Hold Public Consultations for alignment and substation site Prepare and issue Report on Consultation Commence further environmental and engineering surveys on proposed alignment	
Additional Comments: N/A	



TORI SHET-RI-069 - Kinardochoy Reactive Compensation	Scheme Kinardochoy Reactive Compensation
Overview of Works Reactive Compensation is required at a new Kinardochoy substation for voltage support on the 275kV Beauldy-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: Tree felling across the main substation platform site. Construction of the initial site access roads. Mobilisation of the OHL works contractor.	
Summary of works in next 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.	
Additional Comments: N/A	



TORI SHET-RI-072 - Blackhillock-Kintore 400 kV OHL Upgrade	Scheme Blackhillock-Kintore 400 kV OHL 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 on hold.	
Summary of works in next quarter: Project superseded by SHET-RI-137 Blackhillock – New Deer – Peterhead	
Additional Comments:	



TORI SHET-RI-075 - Orkney 132kV Infrastructure Finstown - Ellibster	Scheme 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 Station at Ellibister and a 132kV OHL Trident wood pole connection from Ellibister to Finstown Substation. 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 SHET-RI-079 - Blackhillock Additional 275/132kV SGTs	Scheme Blackhillock Additional 275/132kV SGTs
Overview of Works Reinforce the transmission network at Blackhillock substation by installing two additional new 275/132kV Supergrid Transformers. The transformers are to be rated at 360MVA.	
Project Completion Date	30/06/2025
Summary of works in last quarter: Work to conclude relevant internal governance requirements on the ongoing assessment of scope whether 1 or 2 SGTs are required. Assessment report produced indicating 1 SGT was required subject to approval and change control process. Assessed the feasibility of using non-SF6 GIS switchgear for new bays in the 132kV building and noting based on current technology and spatial constraints that a non-SF6 solution would not be feasible at this time.	
Summary of works in next 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.	
Additional Comments: N/A	



TORI SHET-RI-086 - Craig Murrail Switching Station	Scheme Craig Murrail Switching Station
Overview of Works 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	31/10/2025
Summary of works in last quarter: Works to conclude Town & Country planning / Section 37 deliverables ahead of the submission date. Further surveys such as peat probing, transport assessment undertaken. Development of tendering documentation ahead of ITT submission in Q2 2022.	
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.	
Additional Comments: N/A	



TORI SHET-RI-088 - Loch Buidhe - Dounreay 275kV Reinforcement	Scheme Loch Buidhe - Dounreay 275kV Reinforcement
Overview of Works 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: Works to be considered alongside SHET-RI-058. Alternative options to be considered to increase rating of existing conductor.	
Summary of works in next quarter: Progress initial optioneering and assessment of increasing the operating temperature on the 275kV circuit.	
Additional Comments: N/A	



TORI SHET-RI-089 - Farigaig SGT2 Upgrade	Scheme 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: <ul style="list-style-type: none"> - Payment for extension of guarantee made to Efacec in January - In-situ replacement confirmed, civil designs developed accordingly 	
Summary of works in next quarter: <ul style="list-style-type: none"> • Confirm 275kV CB (circuit breaker) suitable for point on wave switching. If not obtain costs for required modifications or 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, issue to contractors in Q3 2022 	
Additional Comments: Order for SGT has been placed with Efacec. Require delivery to site in February 2024. Instruction to Efacec to proceed with manufacture to be issued by 31 October 2022. This allows Efacec 16 months for manufacture and deliver to site.	



TORI SHET-RI-090 - Coupar Angus - Errochty 132kV Reconductoring	Scheme Coupar Angus - Errochty 132kV Reconductoring
Overview of Works Reconductor approximately 15.4km of the existing 132kV double circuit OHL between Errochty and Clunie substations. This double circuit is to be reconducted with UPAS conductor (1 x 300mm ²) and will operate at 75°C to give a minimum summer pre-fault rating of 176MVA.	
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 SHET-RI-093 - East Coast Phase 2 - 400kV Reinforcement	Scheme East Coast Phase 2 - 400kV Reinforcement
Overview of Works 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 - Continuation of platform earthworks, commencement of building construction. Kintore Substation Works – Completion of the bulk earthworks to achieve a level platform 800mm below finished level, Completion of building foundations and commencement of building steelwork erection, continued refinement of the substation layout (particularly the interfaces with the live asset), and development of the initial switchgear design. Fetteresso 400kV upgrade – ongoing development works to allow the project to complete internal governance requirements. East Coast OHL 400kV Upgrade Works – Part A design works underway.	
Summary of works in next 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. Conclude 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.	
Additional Comments: N/A	



TORI SHET-RI-098 - Dunoon GL1-GL2 OHL Rebuild	Scheme Dunoon GL1-GL2 OHL Rebuild
Overview of Works Rebuild approximately 18km of double circuit overhead line between Dunoon substation and the SHET – SPT boundary. This project interfaces with Scottish Power Transmission (SPT), and any works required beyond the SHET-SPT boundary will be the responsibility of SPT.	
Project Completion Date	30/05/2026
Summary of works in last quarter: Appointed early Contractor Involvement (ECI) contractor Carried out site walkover surveys for tower location and accesses Identify tower locations and access requirements	
Summary of works in next quarter: Undertake GI works at angle tower locations. Carry out pre s37 application information event Complete pre s37 deliverables such as Traffic Management Plan (TMP) and tower access report. Issue wayleaves and Heads of Terms (HOT's) to landowners	
Additional Comments: N/A	



TORI SHET-RI-105 - Rothienorman s/s & Rothienorman - Kintore Reconductoring	Scheme Rothienorman s/s & Rothienorman - Kintore Reconductoring
Overview of Works Establish a new double busbar at Rothienorman to be built at 400kV, but initially operate at 275kV. Re-conductor the 275kV double circuit overhead line between the new double busbar at Rothienorman and Kintore substation (MX1, MX2).	
Project Completion Date	20/08/2021 (energised)
Summary of works in last quarter: Completion of deer fencing, remedial works and progress handover to SSEN Operations (Governance Gate 5).	
Summary of works in next quarter: Completion of handover to Operations. Closure of all outstanding defects and close-out of project finances.	
Additional Comments: Gate 5 date now 31 st March 2022	



TORI SHET-RI-106b - Connagill 2nd SGT	Scheme Connagill 2nd SGT
Overview of Works At Connagill substation, install a 2nd 275/132kV 360MVA supergrid transformer, to enable the connection of wind generation in the local area to the Dounreay – Loch Buidhe 275kV circuit.	
Project Completion Date	01/05/2025
Summary of works in last quarter: Progressed with early stage development. Reviewed Gate 0 documentation including DRD. Reviewed existing Connagill Substation site and undertook a site visit. Confirmed no additional land or consents required to undertake the works.	
Summary of works in next quarter: Combined Gate 1/2 planned for May/June 22. Commence procurement of the SGT.	
Additional Comments: N/A	



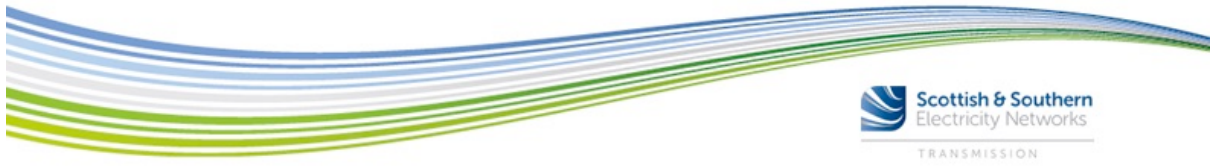
TORI SHET-RI-107 - North Argyll - Inveraray Reinforcement	Scheme North Argyll - Inveraray Reinforcement
Overview of Works Reinforce the double circuit overhead line between North Argyll 275/132kV substation (established as part of SHET-RI-013) and Inveraray 132kV switching station. This reinforced circuit will connect to the double circuit overhead line from Crossaig (rebuilt as part of SHET-RI-050) approximately 2.8km away from Inveraray.	
Project Completion Date	30/10/2025
Summary of works in last quarter: Ongoing works on alignment design and environmental assessment of the alignment and options. Stakeholder and Public Consultation on preferred alignment to be completed.	
Summary of works in next 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.	
Additional Comments: N/A	



TORI SHET-RI-109 - Loch Buidhe - Spittal 132kV Reconductoring	Scheme Loch Buidhe - Spittal 132kV Reconductoring
Overview of Works Reconductor the existing 90km 132kV tower line between Loch Buidhe and Spittal substations. The 132kV overhead line is to be reconducted 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
Summary of works in last quarter: Development team have held project kick-off call as part of Gate 0-1 phase and commenced optioneering.	
Summary of works in next quarter: Continuation of the Gate 0 - 1 stage 'Opportunity Assessment'.	
Additional Comments: N/A	



TORI SHET-RI-111 - Abernethy 132kV Mesh Corner	Scheme 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 – Charleston 132kV double circuit overhead line (PCN/CAS).	
Project Completion Date	31/10/2022
Summary of works in last quarter: Continue to progress with Regional Development Plan and further optioneering to identify most economical solution to accommodate contracted generation.	
Summary of works in next quarter: On Hold	
Additional Comments: N/A	



TORI SHET-RI-115 - Melgarve 400/132 kV Substation Additional SGTs	Scheme Melgarve 400/132 kV Substation Additional SGTs
Overview of Works 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	31/10/2026 01/07/2026
Summary of works in last quarter: <ul style="list-style-type: none"> - Strategic Options Assessment completed for Melgarve cluster - Preferred Option requires installation of new 132kV GIS switchboard - Meeting with local community (Laggan Community Council) - Consultation event held and Statutory Consultees engaged, consultation report on cluster drafted - Environmental surveys are continuing 	
Summary of works in next quarter: <ul style="list-style-type: none"> - 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 	
Additional Comments: Completion date amended to align with Cloiche as works required for this connection	



TORI SHET-RI-116 - Kergord - Yell 132kV Connection	Scheme Kergord - Yell 132kV Connection
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: Preparation of specification to go out to tender for Marine Survey for 132kV subsea cable connection between Shetland mainland and Yell. Place contract to carry out Geotechnical investigations starting April 2022. Continue developing OHL and cable alignments taking on board environmental reports.	
Summary of works in next quarter: Select Marine Survey supplier and place contract. Complete Geotechnical investigations. Submit application for quotation from SHEPD for undergrounding of existing overhead line infrastructure.	



TORI SHET-RI-117 - Tealing 275kV Busbar Upgrade	Scheme Tealing 275kV Busbar Upgrade
Overview of Works 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	18/11/22
Summary of works in last quarter: All remaining circuit transfers completed. And bus bar energised Confirm when user will be ready to energise each of their circuits	
Summary of works in next quarter: Users current plan should have 2 out 3 circuits energised within the next quarter. Project has been delayed in completion due to user delayed in energisation	
Additional Comments: N/A	



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



TORI SHET-RI-120 - East Coast 132kV Upgrade	Scheme East Coast 132kV Upgrade
<p>Overview of Works</p> <p>Construct a new Grid Supply Point substation near Fiddes connected to the 275kV double circuit tower line XT1/XT2 between Kintore and Tealing.</p> <p>Construct a new 132kV double circuit overhead line between Brechin and the Tealing/Arbroath/Brechin Tee Point.</p> <p>Reconductor the existing double circuit tower line between Tealing and the Tealing/Arbroath/Brechin Tee Point.</p> <p>Dismantle the existing Fiddes 132/33kV substation.</p> <p>Dismantle the existing 132kV single circuit overhead line between the Craigiebuckler/Tarland/Fiddes Tee Point and the Brechin Substation.</p>	
Project Completion Date	31/10/2026
<p>Summary of works in last quarter:</p> <p>Ongoing System Planning and Asset Management review of the overhead line options between Brechin and the Tealing/Arbroath/Brechin Tee Point.</p>	
<p>Summary of works in next quarter:</p> <p>Ongoing System Planning and Asset Management review of the overhead line options between Brechin and the Tealing/Arbroath/Brechin Tee Point.</p>	
<p>Additional Comments:</p> <p>N/A</p>	



TORI SHET-RI-121 - Charleston - Abernethy 132kV Reconductoring	Scheme Charleston - Abernethy 132kV Reconductoring
Overview of Works Reconductor approximately 25km of 132kV OHL between Abernethy 132kV substation and Charleston 132kV substation. The circuit should be reconducted with a conductor capable of a minimum summer pre-fault rating of 150MVA.	
Project Completion Date	31/10/2022
Summary of works in last quarter: Continue with Optioneering and Project Development to identify optimum reinforcement strategy to accommodate contracted generation.	
Summary of works in next quarter: On Hold	
Additional Comments: N/A	



TORI SHET-RI-123 - Shin - Loch Buidhe 132kV Reconductoring	Scheme Shin - Loch Buidhe 132kV Reconductoring
Overview of Works Following the completion of SHET-RI-058, Shin substation will be radially connected into Loch Buidhe 132kV substation via the existing 132kV double circuit. TORI-123 project is to reconductor this 132kV double circuit overhead line between Shin substation and Loch Buidhe substation. The double circuit should be reconducted with a minimum summer pre-fault rating of 190MVA.	
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: System Studies ongoing. Works to be considered alongside SHET-RI-058.	
Additional Comments: N/A	



TORI SHET-RI-124 - 2nd Shetland HVDC Link Kergord - Rothienorman	Scheme 2nd Shetland HVDC Link Kergord - Rothienorman
Overview of Works Construct a 2nd 600MW (tbc) HVDC link from Kergord 132kV substation on Shetland (established under SHET-RI-053) to the Scottish mainland at an HVDC convertor station at Rothienorman substation. The 600MW HVDC link will have approximately 36km of land cable and 320km of 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 SHET-RI-126 - Kergord - Yell 132kV 2nd Connection	Scheme Kergord - Yell 132kV 2nd Connection
Overview of Works On Shetland install a new 2nd 132kV single circuit between the Kergord 132kV substation (established as part of SHET-RI-053) and the South Yell Switching Station (constructed as part of SHET-RI-116), to enable the connection of renewable 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 – not required at present.	
Additional Comments: N/A	



TORI SHET-RI-127 - Dounreay - Spittal 400 kV Double Circuit Cable	Scheme Dounreay - Spittal 400 kV Double Circuit Cable
Overview of Works 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: Coordination required with Scotwind and Offshore Transmission Network Review workstream.	
Summary of works in next quarter: Project to enter the initial development stages alongside TORI 128.	
Additional Comments: N/A	



TORI SHET-RI-128 – Caithness to Peterhead HVDC Link	Scheme 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: N/A	
Summary of works in next quarter: Begin initial project development works	
Additional Comments: N/A	



TORI SHET-RI-129 - Farigaig SGT1 Upgrade	Scheme 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: Design finalised based on Efacec unit and works information for tender being prepared. Change request submitted to align SGT replacement with new connection date.	
Summary of works in next quarter: Re-design of civil works due to concerns / perceived risks regards ordering SGT1 from Efacec. Determine whether existing 275kV CB can be modified for point on wave switching. Confirm SGT protection scheme does not need to be replaced.	
Additional Comments: Completion date delayed due to LT300 (Corriegarth 2) ModApp delaying connection date to 01/07/2025.	



TORI SHET-RI-130a - North Argyll - Craig Murrail 275kV Operation	Scheme North Argyll - Craig Murrail 275kV Operation
Overview of Works 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	31/10/2025
Summary of works in last quarter: An Suidhe 33kV/275kV and Crarae 33kV/275kV substation designs have been progressed and initial design meetings held with Customers affected by design changes.	
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.	
Additional Comments: N/A	



TORI SHET-RI-130b - Craig Murrail - Crossaig 275kV Operation	Scheme Craig Murrail - Crossaig 275kV Operation
Overview of Works 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.	
Project Completion Date	31/10/2026
Summary of works in last quarter: Crossaig North 132kV/275kV substation design has been progressed.	
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.	
Additional Comments: N/A	



TORI SHET-RI-131 - Brechin 132kV Extension	Scheme Brechin 132kV Extension
Overview of Works Construct 2 new circuit breakers at Brechin Grid 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 SHET-RI-132 - Beauly-Blackhillock High Temperature Reconductoring	Scheme Beauly-Blackhillock High Temperature Reconductoring
Overview of Works Reconductor the Beauly - Blackhillock 275 kV double circuit line with high temperature conductors. The circuits to be reconducted 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 progressed by Development team.	
Summary of works in next quarter: Continue optioneering works and review requirements alongside Beauly – Blackhillock 400kV circuit works	
Additional Comments: N/A	



TORI SHET-RI-133 - Loch Buidhe SGT Upgrade	Scheme Loch Buidhe SGT Upgrade
Overview of Works Replacement of existing Loch Buidhe 240MVA 132/275kV SGTs with 480MVA units.	
Project Completion Date	30/07/2027
Summary of works in last quarter: Initial development/optioneering works kick off	
Summary of works in next quarter: Initial development/optioneering works kick off	
Additional Comments: N/A	



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



TORI SHET-RI-135 - Edinbane 132kV Substation	Scheme Edinbane 132kV Substation
Overview of Works Construct a 132kV Collector Switching Station at Edinbane These works will include provision of reactive compensation equipment to accommodate additional generation onto the Skye 132kV system.	
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: Work to progress on optioneering and preparation of MSIP submission to Ofgem.	
Additional Comments: N/A	



TORI SHET-RI-136 - Blackhillock 400kV Building Extension	Scheme Blackhillock 400kV Building Extension
Overview of Works Extend existing Blackhillock 400kV GIS building to allow space provision for additional bays.	
Project Completion Date	31/08/2024
Summary of works in last quarter: Initial development and optioneering works to progress.	
Summary of works in next quarter: Initial development and optioneering works to progress.	
Additional Comments: N/A	



TORI SHET-RI-137 - Blackhillock-New Deer-Peterhead 400kV OHL	Scheme Blackhillock-New Deer-Peterhead 400kV OHL
Overview of Works 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: Initial development and optioneering works to progress. Project to be prepared for submission for evaluation in Network Options Assessment (NOA).	
Summary of works in next quarter: Continuation of high-level project development, along with initial internal governance activities.	
Additional Comments: N/A	



TORI SHET-RI-138 - New Deer 400kV Busbar Extension	Scheme New Deer 400kV Busbar 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 development and optioneering works to progress.	
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-139 - 2GW HVDC Link New Deer to England	Scheme 2GW HVDC Link New Deer to England
Overview of Works Install an indoor 2GW HVDC converter station with 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: Initial development and optioneering works to progress.	
Additional Comments: N/A	



TORI SHET-RI-140 - Thurso South 275 kV Substation Redevelopment	Scheme Thurso South 275 kV Substation 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
Summary of works in last quarter: Project on hold	
Summary of works in next quarter: Project on hold	
Additional Comments: N/A	



TORI SHET-RI-141 - Spittal to New Deer HVDC Link	Scheme 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: Project requirement being assessed.	
Additional Comments: N/A	



TORI SHET-RI-142 - Caithness to New Deer 2 - 2 x 1GW HVDC Links	Scheme Caithness to New Deer 2 - 2 x 1GW HVDC Links
Overview of Works Construct 2 x 1GW HVDC links from Spittal to New Deer 2, including converter stations and associated equipment.	
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: Coordination required with ScotWind and Offshore Transmission Network Review workstream.	
Additional Comments: N/A	



TORI SHET-RI-143 - Kergord - Gremista GSP 132kV Infrastructure	Scheme Kergord - Gremista GSP 132kV Infrastructure
Overview of Works Construct a new 132kV 24km circuit between Kergord substation and Gremista GSP, terminated onto new 132kV feeder bays at Kergord and Gremista. Construct a new Tee point for the connection of a wind farm.	
Project Completion Date	30/04/2025
Summary of works in last quarter: Preparation of MSIP submission to Ofgem and development works.	
Summary of works in next quarter: Continue development works	
Additional Comments: N/A	



TORI SHET-RI-144 - New Deer 2 400kV Substation	Scheme 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: Initial development and optioneering works to progress.	
Additional Comments: N/A	



TORI SHET-RI-145 - 2GW HVDC Link New Deer 2 to England	Scheme 2GW HVDC Link New Deer 2 to England
Overview of Works Install an indoor 2GW HVDC converter station with associated equipment at New Deer 2 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: Initial development and optioneering works to progress.	
Additional Comments: N/A	



TORI SHET-RI-147 - Tealing 400kV Substation	Scheme Tealing 400kV Substation
Overview of Works Establish a new 400kV substation close to the existing Tealing 275kV Substation.	
Project Completion Date	31/10/2031
Summary of works in last quarter: Initial development and optioneering works to progress.	
Summary of works in next quarter: Initial development and optioneering works to progress.	
Additional Comments: N/A	



TORI SHET-RI-148 - Alyth – Tealing 400kV Reinsulation	Scheme Alyth – Tealing 400kV Reinsulation
Overview of Works Re-insulate the 275kV double circuit overhead line between Alyth and Tealing for 400kV operation.	
Project Completion Date	31/10/2031
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 SHET-RI-149 - Tealing – Glenrothes Westfield 400kV Rebuild	Scheme Tealing – Glenrothes Westfield 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: 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 SHET-RI-150 - Inverguie Tee – Peterhead 132kV Reconductoring	Scheme Inverguie Tee – Peterhead 132kV Reconductoring
Overview of Works Reconductor approximately 6.7km of 132kV OHL between The Inverguie Tee and Peterhead 132kV substation. The circuit should be reconducted 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: 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 SHET-RI-151 - Peterhead – St Fergus 132kV Line Works -	Scheme Peterhead – St Fergus 132kV Line 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 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	Scheme 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	31/05/2028
Summary of works in last quarter: Coordination required with Scotwind and Offshore Transmission Network Review workstream.	
Summary of works in next quarter: Initial project development works to commence.	
Additional Comments: N/A	



TORI SHET-RI-155 - Peterhead - Persley Tee 275kV Works	Scheme Peterhead - Persley Tee 275kV Works
Overview of Works	
Project Completion Date	
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-165 - Alcemi Substation 400kV Switchgear	Scheme Alcemi Substation 400kV Switchgear
Overview of Works	
Project Completion Date	
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-166 - Tealing – Arbroath 132kV Line Works	Scheme Tealing – Arbroath 132kV Line 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.	
Project Completion Date	30/04/2026
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 high-level project development, along with initial internal governance activities.	
Additional Comments: N/A	



TORI SHET-RI-167 - Keith 275kV Sync Comp	Scheme Keith 275kV Sync Comp
Overview of Works	
Project Completion Date	
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 SHET-RI-168 - Melvich to Connagill 132kV Connection	Scheme Melvich to Connagill 132kV 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 to a 132kV bay at Connagill and a single 132kV busbar at Melvich Community Wind Farm.	
Project Completion Date	31/10/2027
Summary of works in last quarter: N/A	
Summary of works in next quarter: Begin initial development works	
Additional Comments: N/A	