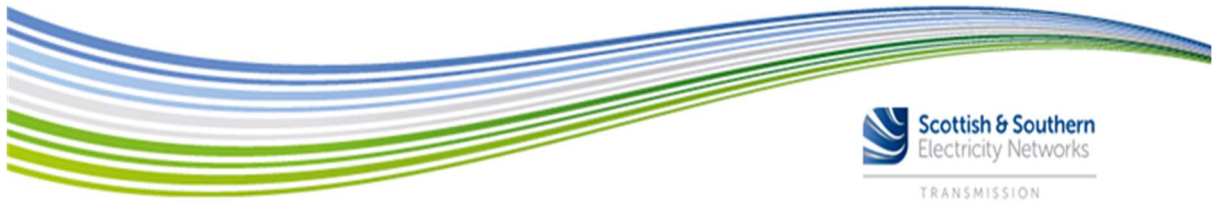




**Transmission Owner
Reinforcement Instruction (TORI)
Quarterly Update Report Q2
April 2020 – June 2020**

June 2020



Transmission Owner Reinforcement Instruction (TORI)

Quarterly Update Report Q2

April 2020 – June 2020

SHE 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 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	31/12/2027
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-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	01/04/2025
Summary of works in last quarter: See TORI-042	
Summary of works in next quarter: See TORI-042	
Additional Comments: See TORI-042	



TORI SHET-RI-009 - East Coast Onshore 275kV Upgrade	Scheme East Coast Onshore 275kV Upgrade
Overview of Works Re-profile the existing Kintore-Tealing-Kincardine 275kV circuits and the existing Tealing-Westfield-Longannet 275kV circuits for higher temperature operation. Establish new busbar at Alyth, to be built at 400kV but initially operate at 275kV, with reactive support. 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: Complete production of Works Information to allow tendering exercise for Alyth Substation & associated Public Improvement Works. Progress tendering exercise for Overhead Line upgrade works. Complete development of Errochty Intertrip design and engage Supply Chain.	
Summary of works in next quarter: Alyth Substation works tender process to be progressed. Alyth PRI works now tendered with site works commencing late 2020. Errochty work instruction to be developed to allow the works to be tendered.	
Additional Comments: COVID-19 potential to cause impact on programme.	



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 North Argyll and Dalmally Substations.	
Project Completion Date	31/10/2024
Summary of works in last quarter: Part A design for preferred alignment has been completed. Alternative connection point option has been assessed.	
Summary of works in next quarter: Consult with public and stakeholders upon outcome of cable and alternative connection options. Virtual consultation being planned.	
Additional Comments: Public and statutory stakeholder feedback to preferred alignment has led to cable and alternative connection options being considered and assessed.	



TORI SHET-RI-015a - Knocknagael – Tomatin 275-132kV Reinforcement	Scheme Knocknagael – Tomatin 275-132kV Reinforcement
Overview of Works The Beauly-Knocknagael-Tomatin 275/132kV Reinforcement originally part of SHET-RI-015 is separated into two work elements i.e SHET-RI-15a, Knocknagael-Tomatin 275/132kV Reinforcement and SHET-RI-15b, the existing 132kV OHLs reconfiguration. Reinforce the existing 132kV transmission network between Beauly–Farr–Boat of Garten (Circuits BR1/RG1/BR2/RG2). Note that the existing 132kV OHL passes close to Knocknagael substation. SHET-RI-015a, Knocknagael-Tomatin 275/132kV Reinforcement: Establish a new 275/132kV substation station including a 132kV double busbar arrangement near Tomatin and connected to a new 275kV double circuit OHL from the Knocknagael 275kV busbar via 275/132kV SGTs.	
Project Completion Date	15/11/2019
Summary of works in last quarter: Reinstatement and landscaping works around the Tomatin s/s site	
Summary of works in next quarter: Reinstatement and landscaping works around the Tomatin s/s site to recommence - postponed due to COVID-19	
Additional Comments: Noise complaint to be investigated regarding the new 275kV OHL Minor defect clearance has been impacted by COVID-19 restrictions	



TORI SHET-RI-015b - Beauly – Farr – Boat of Garten 132kV OHL Reconfiguration	Scheme Beauly – Farr – Boat of Garten 132kV OHL Reconfiguration
Overview of Works The Beauly-Knocknagael-Tomatin 275/132kV Reinforcement originally part of SHET-RI-015 is separated into two work elements i.e. SHET-RI-15a, Knocknagael-Tomatin 275/132kV Reinforcement and SHET-RI-15b, the existing 132kV OHLs reconfiguration. Reinforce the existing 132kV transmission network between Beauly–Farr–Boat of Garten (Circuits BR1/RG1/BR2/RG2). Note that the existing 132kV OHL passes close to Knocknagael substation. SHET-RI-015b, Beauly-Farr-Boat of Garten 132kV OHL Reconfiguration: The existing section of 132kV OHL (BR1 & BR2) between Beauly and Farr will be terminated on the 132kV busbar at Knocknagael Substation. The OHL sections of the existing 132kV OHL will be dismantled between Knocknagael and Farr as part of the 132kV OHL reconfiguration. The existing section of double circuit 132kV OHL (RG1 & RG2) between Farr and Boat of Garten will be reconfigured as radial circuits between Tomatin and Boat of Garten. A normally open (N/O) point will be required at Keith on the circuit (FK) between Glenfarclas and Keith.	
Project Completion Date	24/05/2020
Summary of works in last quarter: Complete remote end works at Farr s/s and commission the MAR1 and MAR2 circuits into Tomatin. Beauly P&C works, turning in of the new BC3 and BC4 circuits into Knocknagael and dismantling of the redundant section of the RG 132kV OHL route all begin early 2020 and will run through to mid 2020	
Summary of works in next quarter: Dismantling of redundant sections of OHL and reinstatement to continue - postponed due to CV19	
Additional Comments: N/A	



TORI SHET-RI-015c - Boat of Garten - Tomatin MAG1 Reconductoring	Scheme Boat of Garten - Tomatin MAG1 Reconductoring
Overview of Works Reconductor the MAG1 132kV Overhead line circuit between Boat of Garten and Tomatin.	
Project Completion Date	31/03/2020
Summary of works in last quarter: The last section of the OHL is to be replaced by UGC under the Vista project. These works are programmed to be complete by the spring 2020, this will provide the increased circuit rating.	
Summary of works in next quarter: Reinstatement to complete and finalise land costs Agree way forward for defect clearance	
Additional Comments: Defect clearance sanction required for clearance infringement and foundation upgrade methodology	



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	31/04/2025
Summary of works in last quarter: Monitor progress of developers in relation to meeting Ofgem's conditionality to be achieved by December 2021. Obtaining the Crown Estate option agreement.	
Summary of works in next quarter: Monitor progress of developers in relation to meeting Ofgem's conditionality to be achieved by December 2021. Completion has moved out to April 2025.	
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	31/10/2024
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	31/09/2023
Summary of works in last quarter: Tender process concluded, with Part A contract award negotiations being finalised	
Summary of works in next quarter: Progress with OHL design and Site investigations. Section 37 and necessary wayleaves to be determined. Issue works information for substation scope to PC's	
Additional Comments: COVID-19 potential to cause impact on programme. Potential outage constraints for 2021 works.	



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 SHE-Transmission 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: The Invitation to Tender for the Seabed Surveys has been issued. Supplementary works for this activity is now being prepared. Following completion of the Peterhead Site Selection works, preparations are underway to begin land discussions, required surveys to inform planning and undertaking of a Public Consultation.	
Summary of works in next quarter: Complete the Tender for the Seabed Survey Works and commence the survey works following receipt of licences. Progress onshore environmental and engineering works to develop the onshore convertor stations, continue land discussions on the preferred convertor site at Peterhead and continue stakeholder engagement. The Initial Needs Case is due to be finalised in this period for Ofgem Submission as part of the Strategic Wider Works Submission.	
Additional Comments: The impact of COVID-19 restrictions continues to be monitored, which has restricted Consultation events with stakeholders and the public to online events. Potential impacts on the seabed surveys continue to be monitored.	



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 (SGT1 and SGT2) and approx. 500m of 275kV cable between the new 400kV busbar and the existing 275kV busbar.</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 (SGT1).</p>	
Project Completion Date	31/10/2023
<p>Summary of works in last quarter:</p> <p>Continuation of Refinement phase, Agreement in principle the cable crossing designs with Gas Pipeline owners. Continuation with Part A design deliverables with Contractor, Project Safety Review completed and preparation of all governance documents for Project Assurance review in mid-2020. SHEPD cable diversion works completed at site.</p>	
<p>Summary of works in next quarter:</p> <p>Conclusion of Refinement phase Continuation of Design Contracts, Conclusion of land purchase, Agreement of cable crossing design details with Gas Pipeline owners. Commencement of Public Road improvements in mid-2020. Conclude internal design review. Project Assurance Review mid-2020.</p>	
<p>Additional Comments:</p> <p>COVID-19 potential to cause impact on programme. Delay to Tenancy termination conclusion</p>	



TORI SHET-RI-025d - North East Reinforcement	Scheme North East Reinforcement
<p>Overview of Works</p> <p>Re-insulate the 275kV double circuit overhead lines between Rothienorman – Blackhillock and Rothienorman - Kintore for 400kV operation.</p> <p>Remove the two line connected 400/275kV, 1200MVA SGT’s 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.</p> <p>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>Tender process concluded, with Part A contract award negotiations being finalised</p>	
<p>Summary of works in next quarter:</p> <p>Progress with OHL design and Site investigations. Section 37 and necessary wayleaves to be determined. Issue works information for substation scope to PC’s</p>	
<p>Additional Comments:</p> <p>Section 37 and necessary wayleaves determinations have been delayed due to COVID-19, risk of further delays.</p> <p>Potential outage constraints for 2021 works.</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: Design development work continuing project alongside the East Coast 400kV works.	
Summary of works in next quarter: Design development work continuing project alongside the East Coast 400kV works.	
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 substation at a suitable location around Gills Bay (west of John O’Groats) and connect in two radial circuits from Thurso south. Construct a new suitably rated double circuit operated at 132kV from Gills Bay to Thurso South.	
Project Completion Date	30/09/2024
Summary of works in last quarter: Project currently classified as Sole Use, will change to become Shared Use upon contract signing.	
Summary of works in next quarter: Project now a Shared Use TORI, Engineering and Design in progress.	
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: NOA recommendation to Proceed. We are continuing to look at the connection point of the link in the NE area and the associated impact on onshore works	
Summary of works in next quarter: NOA recommendation to Proceed. Further design development of the proposed onshore works for the proposed landing points. This will inform this years NOA inputs.	
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	01/04/2025
Summary of works in last quarter: Mod App moving connection date to April 2025 processed.	
Summary of works in next quarter: Generator prospects in the Western Isles to be assessed and SSEN will work with stakeholders to determine the best route forward for the connection of developers able to progress.	
Additional Comments: N/A	



TORI SHET-RI-043 - Lewis Infrastructure	Scheme Lewis Infrastructure
Overview of Works Build a new 132kV single circuit OHL between Arnish substation, and the wind farm Tee point. Dismantle the existing 132kV single circuit OHL between Stornoway Tee point, and the wind farm Tee point.	
Project Completion Date	01/04/2025
Summary of works in last quarter: Mod App moving connection date to April 2025 processed.	
Summary of works in next quarter: Generator prospects in the Western Isles to be assessed and SSEN will work with stakeholders to determine the best route forward for the connection of developers able to progress.	
Additional Comments: N/A	



TORI SHET-RI-046 - Taynuilt-North Argyll Reinforcement	Scheme Taynuilt-North Argyll Reinforcement
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	31/10/2021
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 35km 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	31/03/2021
Summary of works in last quarter: COVID-19 impact during initial pause followed by ramp up to pre COVID-19 levels by June end. Forestry works now substantially complete. Access tracks, piling and foundations, tower assembly ongoing. Civil bases completed at Port Ann substation, advance civils and commence equipment installation.	
Summary of works in next quarter: Complete access tracks and piling, foundation civils ongoing, tower erection and start wiring. Port Ann substation - Complete new gantry arrangements and commence bay apparatus installation	
Additional Comments: Revised outage plan must be finalised and outages secured, taking COVID-19 impacts into account.	



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: Design development work continuing on project alongside the Inveraray – Port Ann works.	
Summary of works in next quarter: Advance funding approved: Procure and commence the ground investigation work mid-2020. Advance forestry works commenced spring 2020. Issued Contract tender documentation for the Part A and Part B design and build works.	
Additional Comments: Initial risk review has been completed by the project team. Further updates required on completion of tender.	



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: Project to progress to construction stage	
Summary of works in next quarter: Completion of all planning & s37 conditions to allow project to proceed. Conclude all archaeological investigations to allow Substation platform works to commence. Undertake Public Road Improvements and commence the construction of the Substation access road, site compound and initiate the bulk earthworks. Establish OHL access points, access road(s) & site compound.	
Additional Comments: COVID-19 potential to cause impact on programme.	



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	31/03/2024
Summary of works in last quarter: Assisting Ofgem with approval process for the Needs Case and progressing through internal governance approval processes to allow construction contracts to be awarded from mid-2020. Preparation of the Project Assessment submission to Ofgem. Appointment of the full construction phase team.	
Summary of works in next quarter: Continued appointment of construction phase team. Final Ofgem approval of Needs Case and completion of internal governance process to allow execution of 4 main construction contracts. Pre-submission engagement with Ofgem regarding the Project Assessment.	
Additional Comments: Mobilisation has been delayed due to COVID-19 issues and will continue to require additional management once construction commences.	



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 L3/1 construction approximately 40km, as well as works at Beauly, Loch Buidhe and Shin substations.	
Project Completion Date	31/10/2020
Summary of works in last quarter: Project on hold	
Summary of works in next quarter: System Studies in progress to reassess Derogation requirement.	
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-060 - Loch Buidhe - Dounreay 275kV circuit reductoring	Scheme Loch Buidhe - Dounreay 275kV circuit reductoring
Overview of Works Reductor the west side of the 275kV circuit double circuit between Loch Buidhe and Dounreay making it the same specification as the east side.	
Project Completion Date	31/10/2020
Summary of works in last quarter: Outage taken and reductoring works commenced as planned. Wiring works in first of seven wiring sections planned for this year nearing completion. Work is currently on programme	
Summary of works in next quarter: Access, reinstatement and reductoring works to progress through the summer on the remaining wiring sections	
Additional Comments: Delay due to COVID-19 on earth switch upgrade for Gordonbush Substation - update on installation dates being discussed. Reductoring works impact existing connected wind farms (non-firm connections), they are being kept informed on progress and aim to minimise impact.	



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: Conclude alignment contractor tender. Agreed environmental scope of works with environmental consultants, ensuring alignment with the engineering design. Develop and undertake online consultation to act as replacement for consultation events cancelled due to COVID-19	
Summary of works in next quarter: Undertake OHL alignment works for wood pole and steel tower options. Publish report on routing consultation and commence report on OHL alignment for consultation.	
Additional Comments: COVID-19 potential to cause impact on programme.	



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 Supergrid transformers.	
Project Completion Date	31/10/2021
Summary of works in last quarter: Continuing construction of 400kV & 132kV GIS Building(s) despite supply chain issues due to COVID-19. COVID-19 delayed delivery of 400kV Switchgear and completion of Public Road Improvements.	
Summary of works in next quarter: Continuing construction of 400kV & 132kV GIS Building(s), Delivery of 2no Transformers, 400kV and 132kV Switchgear, completion of Public Road Improvements, significant progress on flood mitigation works.	
Additional Comments: COVID-19 potential to cause impact on programme.	



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 optioneering continued and site option assessment carried out. Consultation did not take place due to COVID-19 restrictions.	
Summary of works in next quarter: Stage by stages and initial layouts to be developed. Consultants for noise mitigation and baseline environmental studies to be engaged.	
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: N/A	



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	31/10/2024
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	31/10/2025
Summary of works in last quarter: A Modification Application is expected to delay the Connection Date, works currently on hold.	
Summary of works in next quarter: A Modification Application is currently being progressed for this project to delay the Completion Date, works are currently on hold.	
Additional Comments: N/A	



TORI SHET-RI-069 - Kinardochy Reactive Compensation	Scheme Kinardochy Reactive Compensation
Overview of Works Reactive Compensation is required at a new Kinardochy substation for voltage support on the 275kV Beauldy-Denny overhead line. The Reactive Compensation will require a capability of +225MVAR and -75MVAR.	
Project Completion Date	31/05/2023
Summary of works in last quarter: Design, Engineering and Tender Activity progressing	
Summary of works in next quarter: Planning and Section 37 consents are to be completed within the next quarter for review prior to submission in Autumn 2020. During this time a scoping request shall be made to Perth and Kinross Council. A Tender exercise has also been recommended and returns expected in the next quarter.	
Additional Comments: Social distancing due to COVID-19 has delayed some ground works due to distance. This may affect the information received during the tender exercise.	



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 on hold	
Additional Comments: N/A	



TORI SHET-RI-073 - Keith-Macduff-Blackhillock	Scheme Keith-Macduff-Blackhillock
Overview of Works Reinforce the existing Keith, Macduff and Blackhillock 132kV transmission network by reconfiguring the Macduff transmission circuits away from Keith 132kV substation.	
Project Completion Date	31/10/2020
Summary of works in last quarter: COVID-19 disrupted progress onsite during April with supply chain issues, further disruption due to social distancing on return to site. Local network OHL outages planned in Spring 2020 had to be cancelled. Despite this horizontal directional drilling works under main A96 truck road were completed. Substation contractor completed mobilisation to site. Works commenced on the offline build of Gas-insulated Switchgear.	
Summary of works in next quarter: Completion of all ducting, joint bays and cable installation. Completion of cable terminations on HMN circuit. Completion of OHL tower build & cable sealing end tower platforms. Completion of stage 1 commissioning on GIS switchgear.	
Additional Comments: COVID-19 potential to cause impact on programme. Further impact of COVID-19 affecting activities on critical path such as cable delivery, Specialised resource from other areas of UK and from abroad.	



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 Ellibster and a 132kV OHL Trident wood pole connection from Ellibster to Finstown Substation. Note that Finstown 132kV Substation is established as part of SHET-RI-019 works.	
Project Completion Date	30/04/2023
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-076 - Fetteresso-Fiddes 270/132kV Reinforcement	Scheme Fetteresso-Fiddes 270/132kV Reinforcement
Overview of Works Establish approximately 10km of double circuit 132kV between Fetteresso and Fiddes Substation. This reinforcement is required to de-load the existing Bridge of Dun – Fiddes – Craigiebuckler (CF circuit) 132kV wood pole circuit. Fetteresso Substation is to be further developed to accommodate a new 275kV and 132kV double busbar arrangement with an additional 240MVA 275/132kV SGT.	
Project Completion Date	31/10/2023
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	30/06/2023
Summary of works in last quarter: Project progressing through Development Team and working towards initial design deliverables.	
Summary of works in next quarter: Project progressing through Development Team and working towards initial design deliverables.	
Additional Comments: N/A	



TORI SHET-RI-085b - Melgarve 400/132kV Substation	Scheme Melgarve 400/132kV Substation
Overview of Works Establish a new 400/132 kV Substation at Melgarve, to enable the connection of wind generation in the area.	
Project Completion Date	30/11/2020
Summary of works in last quarter: No significant progress in the last quarter due to COVID-19 impact. Contractor however managed to complete the installation of STATCOM multicore installation works.	
Summary of works in next quarter: Completion of remainder of the pre-outage works by the Contractor including commissioning of two STATCOMs, IEC 61850 testing and outstanding defects. Impact of COVID-19 pandemic being assessed to consider any potential impact to outages.	
Additional Comments: COVID-19 potential to cause impact on programme.	



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	31/10/2024
Summary of works in last quarter: Not yet contracted. Project will be initiated on acceptance.	
Summary of works in next quarter: Not yet contracted. Project will be initiated on acceptance.	
Additional Comments: N/A	



TORI SHET-RI-088 - Loch Buidhe - Dounreay 275kV Reinforcement	Scheme Loch Buidhe - Dounreay 275kV Reinforcement
Overview of Works Reconductor the existing 275kV double circuit OHL between Loch Buidhe and Dounreay (approximately 87km). The double circuit is to be reconducted with a high temperature conductor, with a summer pre-fault rating of 900MVA.	
Project Completion Date	31/08/2025
Summary of works in last quarter: CBA results to be discussed with NGESO and project progressed to development stage.	
Summary of works in next quarter: System Studies in Progress.	
Additional Comments: Project is at early conceptual design stage.	



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	25/08/2021
Summary of works in last quarter: First design meeting with transformer supplier. Appointment of OHL Principle Contractor and Sub Station Contractor. OHL site investigation to re start and Part A design works commence. Planning committee meet spring 2020 regarding Section 37 approval. Begin discharging planning conditions. Closing out of Wayleaves	
Summary of works in next quarter: Project on hold following request from developer to delay. Mod App is expected.	
Additional Comments: N/A	



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 SHE Transmission/SPT Boundary (Boundary 4).	
Project Completion Date	31/10/2026
Summary of works in last quarter: Engage environmental consultant to prepare Environmental Impact Assessment for OHL. Continue discussion with landowners to upgrade OHL wayleaves. Substation designs developed for the Kintore 400kV Busbar and will proceed through design and development governance, including submission of consents. Other associated substation works will complete options assessment outside of the next quarter.	
Summary of works in next quarter: Continue Environmental surveys to inform Environmental Impact Assessment for OHL. Continue discussion with landowners to upgrade OHL wayleaves. Conduct OHL infringement checks and load and strength analysis Design refinement of Kintore substation to align with North East Coast design refinement activity. Consents for the Kintore substation are due to be submitted in the next quarter. The project will be taken forward by a Delivery Project manager.	
Additional Comments: COVID-19 potential to cause impact on programme.	



TORI SHET-RI-098 - Dunoon GL1-GL2 OHL Rebuild	Scheme Dunoon GL1-GL2 OHL Rebuild
<p>Overview of Works Rebuild approximately 18km of double circuit overhead line between Dunoon substation and the SHET – SPT boundary.</p> <p>This project interfaces with Scottish Power Transmission (SPT), and any works required beyond the SHET-SPT boundary will be the responsibility of SPT.</p>	
Project Completion Date	30/03/2025
<p>Summary of works in last quarter: Established overhead line clearance over Loch Long. Engagement with Maritime & Coastal Agency and Queen's Harbour Master undertaken. Engaged environmental consultant to assess route corridors and alignment. Engaged Engineering consultant to work with the Environmental consultant to establish satisfactory route corridors and alignments.</p>	
<p>Summary of works in next quarter: Award contract to Marine Consultant to undertake vessel study of Loch Long. Progress routing and alignment works with Environmental and Engineering team.</p>	
<p>Additional Comments: N/A</p>	



TORI SHET-RI-099 - Beauly-Keith 132kV Reconductoring	Scheme Beauly-Keith 132kV Reconductoring
Overview of Works Reconductor approximately 108km of the existing 132kV double circuit OHL between Beauly and Keith 132kV substations. This double circuit is to be reconducted with a minimum summer pre-fault rating of 176MVA.	
Project Completion Date	31/10/2022
Summary of works in last quarter: Overhead line works were "Paused" due to Covid19, reconductoring work between Elgin and Keith recommence. Access works from Elgin to Keith for reconductoring and foundation works progressed to programme. Access works for replacement of T49 completed and pile installation for new foundation complete. Foundation upgrade works and tower steelwork replacement ongoing. Slackbuie South cable replacement commenced, works progressing to programme.	
Summary of works in next quarter: Overhead line reconductoring Elgin to Keith will continue with completion forecast late 2020. Foundation upgrade works and tower steelwork replacement ongoing. Replacement T49 and Nairn substation reconductoring works scheduled mid 2020. Slackbuie South cable replacement forecast for completion mid 2020. Substation design works progressing, non outage works scheduled to start late summer.	
Additional Comments: Substation primary plant replacement now scheduled for completion by early 2021. Outage plan amendments following Covid19 "pause" in works will be required for approval.	



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	
	01/04/2021
Summary of works in last quarter: Substation Works : Landscaping / tree planting works completed. Both supergrid transformers cold commissioning complete. Installation of primary plant ongoing. Cable pulling operations commenced and LVAC board commissioned and energised. Overhead Line Works : Continue tower foundation upgrades complete. Reconductoring works to Kintore, first circuit complete. Remaining circuit commenced. OPGW installation Rothienorman - Kintore substantially complete.	
Summary of works in next quarter: Substation Works : Commencement of control panel stage 1 commissioning and delivery of remaining suite of panels. Commissioning of substation battery systems. Cable installation and glanding to complete. Overhead Line : Second Kintore circuit reconductoring to complete	
Additional Comments: COVID-19 potential to cause impact on programme.	



TORI SHET-RI-106b - Connagill 2nd SGT	Scheme Connagill 2nd SGT
Overview of Works At Connagill substation, install a 2nd 275/132kV 120/240MVA supergrid transformer, to enable the connection of wind generation in the local area to the Dounreay – Loch Buidhe 275kV circuit.	
Project Completion Date	31/10/2021
Summary of works in last quarter: Project to be initiated to begin development and engineering	
Summary of works in next quarter: Project to be initiated to begin development and engineering	
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	30/04/2025
Summary of works in last quarter: Initial Gate documents to be prepared and development progressed	
Summary of works in next quarter: Initial Gate documents to be prepared and development progressed	
Additional Comments: Project is at early conceptual design stage.	



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	31/10/2021
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-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: Paper work prepared, project team established and input from Subject Matter Experts with the technical requirements and potential alternatives to the mesh corner.	
Summary of works in next quarter: Changes to the contracted background. ESO CBA is working towards a conclusion. The output of this analysis will inform the next steps for the project i.e. proceed or hold.	
Additional Comments: N/A	



TORI SHET-RI-113 - Kintyre-Hunterston Subsea Cable Intertrip Scheme	Scheme Kintyre-Hunterston Subsea Cable Intertrip Scheme
Overview of Works Between Crossaig substation and Carradale GSP install an intertrip scheme which will monitor the two 220kV Crossaig – Hunterston subsea cables. Following the loss of both subsea cables (N-2) an intertrip signal will be sent to applicable users to switch out.	
Project Completion Date	31/10/2020
Summary of works in last quarter: Contractor to be appointed	
Summary of works in next quarter: Project to be completed alongside Carradale GSP works.	
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
Summary of works in last quarter: May be required for April 2025, subject to TOCO acceptance	
Summary of works in next quarter: May be required for April 2025, subject to TOCO acceptance	
Additional Comments: N/A	



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 tee point on Yell, to enable the connection of renewable generation.	
Project Completion Date	31/03/2024
Summary of works in last quarter: Development and engineering design work to continue	
Summary of works in next quarter: Development and engineering design work to continue	
Additional Comments: N/A	



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	31/10/2021
Summary of works in last quarter: OHL jumpering complete within the substation. Demolition works commence on Main & Reserve busbar and platform extension works progressing	
Summary of works in next quarter: Installation of structures and equipment completed on the platform along with the rebuild of Main & reserve busbar 2. Control room panel installation complete, and commissioning works commenced	
Additional Comments: Impact of COVID delays with equipment and additional working practices being realised, with mitigation measure being reviewed and implemented where possible. Programme reviews underway on impact to delays	



TORI SHET-RI-118 - Orkney 132kV Infrastructure: Finstown - Hoy	Scheme Orkney 132kV Infrastructure: Finstown - Hoy
Overview of Works SHET-RI-118 forms part of the Orkney 132kV Local Onshore Transmission Infrastructure. The works includes the establishment of a 132kV transmission single circuit between Finstown 132 kV busbar (established under SHET-RI-019) and Hoy GSP. The new 132kV infrastructure will comprise of approximately 4km of subsea cable and 26km of overhead line (split into two sections).	
Project Completion Date	31/10/2024
Summary of works in last quarter: TORI will be withdrawn when the developer signs their revised offer. Works are no longer shared use due the termination of another project.	
Summary of works in next quarter: Project on hold	
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	31/10/2023
Summary of works in last quarter: Development and engineering design work to begin	
Summary of works in next quarter: Development and engineering design work to begin	
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 Substaiton.</p>	
Project Completion Date	31/10/2024
<p>Summary of works in last quarter:</p> <p>Whole system/Innovative solutions being investigated to ensure optimal strategy and timing of network reinforcement. Changes to the generation background will be considered through optioneering phase.</p>	
<p>Summary of works in next quarter:</p> <p>Ongoing optioneering, CBA, design development, stakeholder engagement and whole system solutions are being progressed.</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: Whole system/Innovative solutions being investigated to ensure optimal strategy and timing of network reinforcement. Changes to the generation background will be considered through optioneer phase.	
Summary of works in next quarter: Whole system/Innovative solutions being investigated to ensure optimal strategy and timing of network reinforcement. Changes to the generation background will be considered through optioneer phase.	
Additional Comments: N/A	



TORI SHET-RI-122 - Dounreay - Orkney 220kV Subsea HVAC Cable Link 3	Scheme Dounreay - Orkney 220kV Subsea HVAC Cable Link 3
Overview of Works Establish a third 220kV Subsea HVAC circuit over a distance of approximately 67km 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 14km of land cable and 53km of subsea cable.	
Project Completion Date	31/10/2024
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-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: Project to be initiated to begin development and engineering	
Summary of works in next quarter: System Studies ongoing	
Additional Comments: Project is at early conceptual design stage.	



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: Exploring options for the rating of the second HVDC link. Engagement planned with developers.	
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	31/10/2026
Summary of works in last quarter: Subject to acceptance	
Summary of works in next quarter: Project on hold	
Additional Comments: N/A	



TORI SHET-RI-127 - Dounreay - Spittal 400 kV Double Circuit OHL	Scheme Dounreay - Spittal 400 kV Double Circuit OHL
Overview of Works Establish two new 400kV double busbars, one at a new site close to Dounreay and the second at Spittal. Construct approximately 15km of new 400kV double circuit overhead line from the new site close to Dounreay and Spittal.	
Project Completion Date	31/10/2029
Summary of works in last quarter: Subject to acceptance	
Summary of works in next quarter: Subject to CION	
Additional Comments: N/A	



TORI SHET-RI-128 - Caithness-Peterhead Transmission Reinforcement 2250MW HVDC Link	Scheme Caithness-Peterhead Transmission Reinforcement 2250MW HVDC Link
Overview of Works As part of the Caithness-Peterhead Transmission Reinforcement, it is required to construct a 2250MW HVDC link from Spittal to Peterhead. The HVDC link is approximately 145km from Spittal to Peterhead (130km subsea cable).	
Project Completion Date	31/10/2029
Summary of works in last quarter: Subject to acceptance	
Summary of works in next quarter: Subject to CION	
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	01/04/2024
Summary of works in last quarter: Subject to Acceptance	
Summary of works in next quarter: Initial Gate documents to be prepared and development progressed	
Additional Comments: Project is at early conceptual design stage.	



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 substations on this circuit for 275kV operation.	
Project Completion Date	31/10/2025
Summary of works in last quarter: Subject to acceptance	
Summary of works in next quarter: Initial Gate documents to be prepared and development progressed	
Additional Comments: Project is at early conceptual design stage.	



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: Subject to acceptance	
Summary of works in next quarter: Initial Gate documents to be prepared and development progressed	
Additional Comments: Project is at early conceptual design stage.	



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: Project being considered as part of the East Coast 132kV Upgrade Strategic Optioneering	
Summary of works in next quarter: Project being considered as part of the East Coast 132kV Upgrade Strategic Optioneering	
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	31/10/2026
Summary of works in last quarter: Subject to acceptance	
Summary of works in next quarter: Subject to acceptance	
Additional Comments: N/A	