



**Transmission Owner  
Reinforcement Instruction (TORI)  
Quarterly Update Report Q3  
July 2020 – September 2020**

September 2020



## **Transmission Owner Reinforcement Instruction (TORI) Quarterly Update Report Q3 July 2020 – September 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](mailto:transmission.commercial@sse.com)



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<b>TORI</b> SHET-RI-007a - Beauly - Blackhillock 400 kV Double Circuit OHL	<b>Scheme</b> Beauly - Blackhillock 400 kV Double Circuit OHL
<b>Overview of Works</b> 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.	
<b>Project Completion Date</b>	31/12/2027
<b>Summary of works in last quarter:</b> Project on hold.	
<b>Summary of works in next quarter:</b> Project on hold.	
<b>Additional Comments:</b> N/A	



<b>TORI</b> SHET-RI-007b - Beauly 400 kV Busbar	<b>Scheme</b> Beauly 400 kV Busbar
<b>Overview of Works</b> 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.	
<b>Project Completion Date</b>	01/04/2025
<b>Summary of works in last quarter:</b> See TORI-042	
<b>Summary of works in next quarter:</b> See TORI-042	
<b>Additional Comments:</b> See TORI-042	



<b>TORI</b> SHET-RI-009 - East Coast Onshore 275kV Upgrade	<b>Scheme</b> East Coast Onshore 275kV Upgrade
<b>Overview of Works</b> 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.	
<b>Project Completion Date</b>	31/10/2023
<b>Summary of works in last quarter:</b> Alyth Substation works tender process to be progressed - target contract award date is Q3 2020. Alyth PRI works now tendered - target contract award date is Q3 2020 with site works commencing from Q3 2020. Errochty site visit to be undertaken and WI developed to allow these works to be tendered.	
<b>Summary of works in next quarter:</b> Conclude a pre-qualification questionnaire to procure power control devices for the Tealing and submit an invitation to tender to secure a competent contractor to undertake the works.	
<b>Additional Comments:</b> N/A	





<b>TORI</b> SHET-RI-013 - North Argyll Substation	<b>Scheme</b> North Argyll Substation
<b>Overview of Works</b> 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.	
<b>Project Completion Date</b>	31/10/2024
<b>Summary of works in last quarter:</b> Consult with public and stakeholders upon outcome of cable and alternative connection options. Virtual consultation being planned.	
<b>Summary of works in next quarter:</b> Virtual consultation completed 1st & 2nd September, responses requested by 25th Sept. Collate consultation responses and publish Consultation Report in October. Final choice of consultation Option to be made. EIA Scoping to begin. EIA Surveys to commence.	
<b>Additional Comments:</b> N/A	



<b>TORI</b> SHET-RI-015a - Knocknagael – Tomatin 275-132kV Reinforcement	<b>Scheme</b> Knocknagael – Tomatin 275-132kV Reinforcement
<b>Overview of Works</b> 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.	
<b>Project Completion Date</b>	15/11/2019
<b>Summary of works in last quarter:</b> Complete.	
<b>Summary of works in next quarter:</b> Complete.	
<b>Additional Comments:</b> N/A	



<b>TORI</b> SHET-RI-015b - Beauly – Farr – Boat of Garten 132kV OHL Reconfiguration	<b>Scheme</b> Beauly – Farr – Boat of Garten 132kV OHL Reconfiguration
<b>Overview of Works</b> 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.	
<b>Project Completion Date</b>	24/05/2020
<b>Summary of works in last quarter:</b> Dismantling of redundant sections of OHL and reinstatement to continue - postponed due to Covid19 Handover documentation and final records.	
<b>Summary of works in next quarter:</b> Complete final records and handover to Operations.	
<b>Additional Comments:</b> N/A	



<b>TORI</b> SHET-RI-015c - Boat of Garten - Tomatin MAG1 Reconductoring	<b>Scheme</b> Boat of Garten - Tomatin MAG1 Reconductoring
<b>Overview of Works</b> Reconductor the MAG1 132kV Overhead line circuit between Boat of Garten and Tomatin.	
<b>Project Completion Date</b>	31/03/2020
<b>Summary of works in last quarter:</b> Reinstatement to complete and finalise land costs Scheduling for defect clearance being managed Handover documentation and final records.	
<b>Summary of works in next quarter:</b> Complete final records and handover to Operations.	
<b>Additional Comments:</b> Defect clearance sanction required for clearance infringement and foundation upgrade methodology	



<b>TORI</b> SHET-RI-019 - Dounreay - Orkney 220kV Subsea HVAC Cable Link 1	<b>Scheme</b> Dounreay - Orkney 220kV Subsea HVAC Cable Link 1
<b>Overview of Works</b> 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.	
<b>Project Completion Date</b>	31/04/2025
<b>Summary of works in last quarter:</b> Monitor progress of developers in relation to meeting Ofgem's conditionality to be achieved by December 2021. Completion has moved out to April 2025.	
<b>Summary of works in next quarter:</b> Continue engagement with developers in relation to meeting Ofgem's conditionality to be achieved by December 2021. Completion date has moved out to April 2025.	
<b>Additional Comments:</b> N/A	



<b>TORI</b> SHET-RI-020 - Dounreay - Orkney 220kV Subsea HVAC Cable Link 2	<b>Scheme</b> Dounreay - Orkney 220kV Subsea HVAC Cable Link 2
<b>Overview of Works</b> 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.	
<b>Project Completion Date</b>	31/10/2024
<b>Summary of works in last quarter:</b> Project on hold.	
<b>Summary of works in next quarter:</b> Project on hold.	
<b>Additional Comments:</b> N/A	



<b>TORI</b> SHET-RI-025a - Peterhead-Rothienorman 400 kV OHL upgrade	<b>Scheme</b> Peterhead-Rothienorman 400 kV OHL upgrade
<b>Overview of Works</b> 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.	
<b>Project Completion Date</b>	31/09/2023
<b>Summary of works in last quarter:</b> Please see project update for SHET-RI-025d North East 400kV Reinforcement.	
<b>Summary of works in next quarter:</b> Please see project update for SHET-RI-025d North East 400kV Reinforcement.	
<b>Additional Comments:</b> N/A	



<b>TORI</b> SHET-RI-025b - Eastern Subsea HVDC Link	<b>Scheme</b> Eastern Subsea HVDC Link
<b>Overview of Works</b> 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.	
<b>Project Completion Date</b>	31/10/2029
<b>Summary of works in last quarter:</b> 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 negotiations 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.	
<b>Summary of works in next quarter:</b> Seabed Survey Works to commence. Initial Needs Case to be submitted to Ofgem. Supplier Engagement workshops to be undertaken. Onshore environmental and engineering investigation works to be progressed.	
<b>Additional Comments:</b> Weather: Risk that seabed surveys will be impacted by weather conditions at sea. Q3 2020 - Submission of Initial Needs Case Q3 2020 - Mobilisation of Seabed survey contractors	





<b>TORI</b> SHET-RI-025c - Peterhead 400 kV Busbar	<b>Scheme</b> Peterhead 400 kV Busbar
<p><b>Overview of Works</b></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>	
<b>Project Completion Date</b>	31/10/2023
<p><b>Summary of works in last quarter:</b></p> <p>Conclusion of Refinement phase (Q3 2020), Continuation of Design Contracts, Concluded Conclusion of land purchase, Concluded Agreement of cable crossing design details with Gas Pipeline owners. ongoing Commencement of Public Road improvements in Q3 2020. To start Sept 2020. Preferred bidder status to be achieved Q2 2020 for new Super Grid Transformers Completed. Conclude internal gate 3 design review Project Assurance Review, Completed.</p>	
<p><b>Summary of works in next quarter:</b></p> <p>Completion of Part A Contract. Commencement of PRI works in Sept 2020 through to end of October 2020. Part B contract award expected mid November 2020. Transformer contract to be placed Nov 2020. Crossing agreements with pipeline owners to be progressed.</p>	
<p><b>Additional Comments:</b></p> <p>Additional works required within the existing 275kV substation previously not envisaged. Part B award in next period.</p>	



<b>TORI</b> SHET-RI-025d - North East Reinforcement	<b>Scheme</b> North East Reinforcement
<p><b>Overview of Works</b> 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>	
<b>Project Completion Date</b>	31/10/2023
<p><b>Summary of works in last quarter:</b> 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><b>Summary of works in next quarter:</b> Continue with OHL design and Site investigations. Section 37 and necessary wayleaves to be determined. Works information and design for substation scope to progress.</p>	
<p><b>Additional Comments:</b> Potential outage constraints in 2021 Section 37 and necessary wayleaves not yet determined Start on site May 21</p>	



<b>TORI</b> SHET-RI-026 - Blackhillock 275 kV QBs	<b>Scheme</b> Blackhillock 275 kV QBs
<b>Overview of Works</b> 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.	
<b>Project Completion Date</b>	31/10/2026
<b>Summary of works in last quarter:</b> Design development work continuing project alongside the East Coast 400kV works.	
<b>Summary of works in next quarter:</b> Design development work continuing project alongside the East Coast 400kV works.	
<b>Additional Comments:</b> N/A	



<b>TORI</b> SHET-RI-028 - Thurso South to Gills Bay 132kV OHL	<b>Scheme</b> Thurso South to Gills Bay 132kV OHL
<b>Overview of Works</b> 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.	
<b>Project Completion Date</b>	30/09/2024
<b>Summary of works in last quarter:</b> Project now a Shared Use TORI, Engineering and Design in progress.	
<b>Summary of works in next quarter:</b> Project scope to be clarified and updated. Engineering and Design in progress.	
<b>Additional Comments:</b> N/A	



<b>TORI</b> SHET-RI-033 - Second 2 GW East Coast HVDC Link Peterhead to England	<b>Scheme</b> Second 2 GW East Coast HVDC Link Peterhead to England
<b>Overview of Works</b> 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.	
<b>Project Completion Date</b>	31/10/2031
<b>Summary of works in last quarter:</b> NOA recommendation to Proceed. Further design development of the proposed onshore works for the proposed landing points. This will inform this year's NOA inputs.	
<b>Summary of works in next quarter:</b> Further design development of the proposed onshore works for the proposed landing points. This will be included in this year's NOA alongside an alternative option from Blackhillock.	
<b>Additional Comments:</b> N/A	



<b>TORI</b> SHET-RI-042 - Western Isles - Beauly HVDC Link	<b>Scheme</b> Western Isles - Beauly HVDC Link
<b>Overview of Works</b> Establish a 600MW HVDC link with associated equipment and converter stations between the Western Isles (Arnish on Lewis) and the 400kV double busbar at Beauly (established under SHET-RI-007b). The HVDC cable is to be approximately 79km of subsea cable, and approximately 80km of land cable. The HVDC infrastructure will interface with a new 132kV double busbar at Arnish (Lewis) and the 400kV double busbar at Beauly.	
<b>Project Completion Date</b>	01/04/2025
<b>Summary of works in last quarter:</b> 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.	
<b>Summary of works in next quarter:</b> 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.	
<b>Additional Comments:</b> N/A	



<b>TORI</b> SHET-RI-043 - Lewis Infrastructure	<b>Scheme</b> Lewis Infrastructure
<b>Overview of Works</b> 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.	
<b>Project Completion Date</b>	01/04/2025
<b>Summary of works in last quarter:</b> 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.	
<b>Summary of works in next quarter:</b> 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.	
<b>Additional Comments:</b> N/A	



<b>TORI</b> SHET-RI-046 - Taynuilt-North Argyll Reinforcement	<b>Scheme</b> Taynuilt-North Argyll Reinforcement
<b>Overview of Works</b> 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.	
<b>Project Completion Date</b>	31/10/2021
<b>Summary of works in last quarter:</b> Project on hold.	
<b>Summary of works in next quarter:</b> Project on hold.	
<b>Additional Comments:</b> N/A	





<b>TORI</b> SHET-RI-050a - Inveraray - Port Ann Reinforcement	<b>Scheme</b> Inveraray - Port Ann Reinforcement
<b>Overview of Works</b> 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.	
<b>Project Completion Date</b>	31/03/2021
<b>Summary of works in last quarter:</b> Overhead line works: access tracks ongoing and nearing completion, foundation civils ongoing, and first towers topped out. Port Ann substation: All new gantries and catenary wiring installed, electrical installation ongoing.	
<b>Summary of works in next quarter:</b> Overhead line works: Complete access tracks, foundations and commence wiring. Port Ann substation: Electrical installation ongoing. Commission new 132kV circuit switchers	
<b>Additional Comments:</b> Potential constraints to planned outages owing to network issues. Risk of further pandemic related issues arising in winter period impacting resource.	



<b>TORI</b> SHET-RI-050b - Port Ann - Crossaig Reinforcement	<b>Scheme</b> Port Ann - Crossaig Reinforcement
<b>Overview of Works</b> 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.	
<b>Project Completion Date</b>	31/10/2023
<b>Summary of works in last quarter:</b> Advanced forestry works completed to enable the ground investigation works to make good progress. The tender process for the main contract works is well underway.	
<b>Summary of works in next quarter:</b> The tender for the Part A of the main contract works will be concluded and the appointment made in October 2020. The ground investigation will be concluded, and all information issued to the successful contractor.	
<b>Additional Comments:</b> COVID-19 impacted the conclusion of the landscape mitigation plans. Part A contract Award Q4 2020 Full Energisation is expected Q3 2022 with completion of demolition of the existing towers and all reinstatements Q2 2023.	



<b>TORI</b> SHET-RI-052 - Lairg-Loch Buidhe 132kV Reinforcement	<b>Scheme</b> Lairg-Loch Buidhe 132kV Reinforcement
<b>Overview of Works</b> 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.	
<b>Project Completion Date</b>	30/04/2022
<b>Summary of works in last quarter:</b> Award of final design and construction contracts for Substation and OHL. Discharge of all pre-commencement planning & s37 conditions to allow 'development' to proceed. Conclude all archaeological investigations to allow Substation platform works to proceed in full. Undertake Public Road Improvements and commence the construction of the Substation access road, site compound and the 'bulk earthworks'. Establish OHL access points, commence access point/road(s) construction.	
<b>Summary of works in next quarter:</b> Completion of all planning & s37 conditions to allow project to proceed. Conclude the Substation Public Road Improvement works, construct the site access road and main site compound/laydown areas and progress the 'bulk earthworks' (incl. drilling/blasting for site-won rock) for the platform. Commence the OHL Public Road Improvements and construct the access roads for the OHL and establish the main site compound. Commence the foundation works for several towers. Clear fell an area of mature woodland surrounding the OHL operational corridor.	
<b>Additional Comments:</b> Construction Completion Q4 2021 for both Substation and OHL elements Energisation & windfarm connection Q2 2022 Contract Completion Q3 2022	



<b>TORI</b> SHET-RI-053 - Shetland 600 MW HVDC Link and Kergord 132kV Substation	<b>Scheme</b> Shetland 600 MW HVDC Link and Kergord 132kV Substation
<b>Overview of Works</b> 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.	
<b>Project Completion Date</b>	31/03/2024
<b>Summary of works in last quarter:</b> Construction Completion Q4 2021 for both Substation and OHL elements Energisation & windfarm connection Q2 2022 Contract Completion Q3 2022	
<b>Summary of works in next quarter:</b> Commence construction on site at Kergord, Shetland. Submit Project Assessment to Ofgem. Mobilise to Noss Head ahead of construction commencing on the Caithness Switching Station site.	
<b>Additional Comments:</b> N/A	



<b>TORI</b> SHET-RI-058 - Beauly-Loch Buidhe 275kV OHL Reinforcement	<b>Scheme</b> Beauly-Loch Buidhe 275kV OHL Reinforcement
<b>Overview of Works</b> 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.	
<b>Project Completion Date</b>	31/10/2020
<b>Summary of works in last quarter:</b> System Studies in progress to reassess Derogation requirement.	
<b>Summary of works in next quarter:</b> System Studies in progress to reassess Derogation requirement and required scope of reinforcement.	
<b>Additional Comments:</b> N/A	



<b>TORI</b> SHET-RI-059 - Third 2GW East Coast HVDC Link Peterhead to England	<b>Scheme</b> Third 2GW East Coast HVDC Link Peterhead to England
<b>Overview of Works</b> 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.	
<b>Project Completion Date</b>	31/10/2033
<b>Summary of works in last quarter:</b> Project on hold.	
<b>Summary of works in next quarter:</b> Project on hold.	
<b>Additional Comments:</b> N/A	



<b>TORI</b> SHET-RI-060 - Loch Buidhe - Dounreay 275kV circuit reconductoring	<b>Scheme</b> Loch Buidhe - Dounreay 275kV circuit reconductoring
<b>Overview of Works</b> Reconductor the west side of the 275kV circuit double circuit between Loch Buidhe and Dounreay making it the same specification as the east side.	
<b>Project Completion Date</b>	31/10/2020
<b>Summary of works in last quarter:</b> Access, reinstatement and reconductoring works have progressed well through the summer on the remaining wiring sections on schedule to complete on programme.	
<b>Summary of works in next quarter:</b> Completion of reconductoring works and access reinstatements.	
<b>Additional Comments:</b> Issues relating to Covid 19 have delayed earth switch modifications at Gordonbush Substation which is behind programme. Completion of reconductoring works in Q3 2020.	



<b>TORI</b> SHET-RI-061 - Skye Overhead Line Reinforcement	<b>Scheme</b> Skye Overhead Line Reinforcement
<b>Overview of Works</b> 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).	
<b>Project Completion Date</b>	31/12/2025
<b>Summary of works in last quarter:</b> Undertake OHL alignment works for wood pole and steel tower options. Publish report on routing consultation and commence report on OHL alignment for consultation.	
<b>Summary of works in next quarter:</b> Routing alignment works for wood pole and steel tower options on going. Public consultation on route was delayed due to COVID-19, report on consultation due in Q3 2020. Report on Alignment to commence early 2021.	
<b>Additional Comments:</b> Delay to site surveys due to COVID-19 could impact upon programme of site based activities. Publish report on routing consultation Complete draft alignment to consultation in 2020.	





<b>TORI</b> SHET-RI-064 - Fort Augustus Substation 400/132kV Development	<b>Scheme</b> Fort Augustus Substation 400/132kV Development
<b>Overview of Works</b> 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.	
<b>Project Completion Date</b>	31/10/2021
<b>Summary of works in last quarter:</b> 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.	
<b>Summary of works in next quarter:</b> Installation of 400kV Gas Insulated Switchgear, Delivery of 2no Transformers, Completion of the 400kV Building, Continuation of 132kV building construction.	
<b>Additional Comments:</b> Further COVID19 related delays, Transformer delivery in November, Weather / Winter related delays. Transformer Delivery 1 in October Transformer Delivery 2 in November 400kV Building completion November 400kV Switchgear installation complete December	



<b>TORI</b> SHET-RI-065a - Beaully 132 kV Substation Redevelopment	<b>Scheme</b> Beaully 132 kV Substation Redevelopment
<b>Overview of Works</b> Establish a new 132kV double busbar arrangement at Beaully 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	
<b>Project Completion Date</b>	31/10/2024
<b>Summary of works in last quarter:</b> Stage by stages and initial layouts to be developed. Consultants for noise mitigation and baseline environmental studies to be engaged.	
<b>Summary of works in next quarter:</b> TORI has been split into two separate TORIs. Majority of works sit within TORI-065a. Development work on the project continues.	
<b>Additional Comments:</b> N/A	



<b>TORI</b> SHET-RI-065b - Beauly 3rd SGT Replacement	<b>Scheme</b> Beauly 3rd SGT Replacement
<b>Overview of Works</b> 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.	
<b>Project Completion Date</b>	31/10/2025
<b>Summary of works in last quarter:</b> See TORI-065a	
<b>Summary of works in next quarter:</b> See TORI-065a	
<b>Additional Comments:</b> N/A	



<b>TORI</b> SHET-RI-066 - Fort Augustus Substation 400/275kV Development	<b>Scheme</b> Fort Augustus Substation 400/275kV Development
<b>Overview of Works</b> 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.	
<b>Project Completion Date</b>	31/10/2024
<b>Summary of works in last quarter:</b> Project on hold.	
<b>Summary of works in next quarter:</b> Project on hold.	
<b>Additional Comments:</b> N/A	



<b>TORI</b> SHET-RI-068 - Fort Augustus -Invergarry-400/132kV Development	<b>Scheme</b> Fort Augustus -Invergarry-400/132kV Development
<b>Overview of Works</b> 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.	
<b>Project Completion Date</b>	31/10/2025
<b>Summary of works in last quarter:</b> A Modification Application is expected to amend the Completion Date	
<b>Summary of works in next quarter:</b> A Modification Application is currently being progressed for this project to amend the Completion Date.	
<b>Additional Comments:</b> N/A	



<b>TORI</b> SHET-RI-069 - Kinardochy Reactive Compensation	<b>Scheme</b> Kinardochy Reactive Compensation
<b>Overview of Works</b> 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.	
<b>Project Completion Date</b>	31/08/2024
<b>Summary of works in last quarter:</b> Substation ITT for both FACTS (Flexible Alternate Current Transmission System) and BEC (Bulk Earth Works) was issued to tenderers Q2 2020. First round returns were received August 2020. SSEN team are currently reviewing / evaluating the submissions from the tenderers. Also, Overhead Line ITT has been finalised and expected to be issued to tenderers Q3 2020.	
<b>Summary of works in next quarter:</b> Completion of procurement event for both substation and Overhead Line works. Planning and Section 37 consents are to be submitted within the next quarter. completion of ground investigations and surveys.	
<b>Additional Comments:</b> Ground risk until investigations are complete. Final Offer from tenderers and finalisation of the Contractor – Q4 2020. Planning Application submitted – Q4 2020.	



<b>TORI</b> SHET-RI-072 - Blackhillock-Kintore 400 kV OHL Upgrade	<b>Scheme</b> Blackhillock-Kintore 400 kV OHL Upgrade
<b>Overview of Works</b> 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.	
<b>Project Completion Date</b>	30/09/2027
<b>Summary of works in last quarter:</b> Project on hold.	
<b>Summary of works in next quarter:</b> Project on hold.	
<b>Additional Comments:</b> N/A	



<b>TORI</b> SHET-RI-073 - Keith-Macduff-Blackhillock	<b>Scheme</b> Keith-Macduff-Blackhillock
<b>Overview of Works</b> Reinforce the existing Keith, Macduff and Blackhillock 132kV transmission network by reconfiguring the Macduff transmission circuits away from Keith 132kV substation.	
<b>Project Completion Date</b>	31/10/2020
<b>Summary of works in last quarter:</b> 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. Commencement of HV jointing campaign. Completion of stage 1 commissioning on GIS switchgear.	
<b>Summary of works in next quarter:</b> Completion of all HV cable jointing and termination works Completion of all cable HVAC testing Completion of all reinstatement works along cable route Energisation of HMN & HMS Circuits Decommissioning of KMN bay at Keith Substation.	
<b>Additional Comments:</b> Local Government restrictions in reinstating localised area lockdowns affecting specialised resource attending site by having to isolate for period of time.	





<b>TORI</b> SHET-RI-075 - Orkney 132kV Infrastructure Finstown - Ellibster	<b>Scheme</b> Orkney 132kV Infrastructure Finstown - Ellibster
<b>Overview of Works</b> 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.	
<b>Project Completion Date</b>	30/04/2023
<b>Summary of works in last quarter:</b> Project on hold.	
<b>Summary of works in next quarter:</b> Project on hold.	
<b>Additional Comments:</b> N/A	



<b>TORI</b> SHET-RI-076 - Fetteresso-Fiddes 270/132kV Reinforcement	<b>Scheme</b> Fetteresso-Fiddes 270/132kV Reinforcement
<b>Overview of Works</b> 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.	
<b>Project Completion Date</b>	31/10/2023
<b>Summary of works in last quarter:</b> Project on hold.	
<b>Summary of works in next quarter:</b> Project on hold.	
<b>Additional Comments:</b> N/A	



<b>TORI</b> SHET-RI-079 - Blackhillock Additional 275/132kv SGTs	<b>Scheme</b> Blackhillock Additional 275/132kv SGTs
<b>Overview of Works</b> Reinforce the transmission network at Blackhillock substation by installing two additional new 275/132kV Supergrid Transformers. The transformers are to be rated at 360MVA.	
<b>Project Completion Date</b>	30/06/2023
<b>Summary of works in last quarter:</b> Project progressing through Development Team and working towards initial design deliverables.	
<b>Summary of works in next quarter:</b> Project progressing through Development Team and working towards initial design deliverables.	
<b>Additional Comments:</b> N/A	



<b>TORI</b> SHET-RI-085b - Melgarve 400/132kV Substation	<b>Scheme</b> Melgarve 400/132kV Substation
<b>Overview of Works</b> Establish a new 400/132 kV Substation at Melgarve, to enable the connection of wind generation in the area.	
<b>Project Completion Date</b>	30/11/2020
<b>Summary of works in last quarter:</b> Completion of remainder of the pre-outage works by the Contractor including commissioning of two STATCOMs, IEC 61850 testing and outstanding defects. Covid-19 pandemic has had an impact resulting in slow progress.	
<b>Summary of works in next quarter:</b> Outages have been approved for the period between Q3 2020 and Q4 2020). During the next quarter it is planned to complete the permanent connection of the Windfarm by end of the outage period.	
<b>Additional Comments:</b> There is a risk that the inclement weather conditions may not allow the HV test rig to arrive at Stronelairg. STATCOMs are being energised for the first time.	



<b>TORI</b> SHET-RI-086 - Craig Murrail Switching Station	<b>Scheme</b> Craig Murrail Switching Station
<b>Overview of Works</b> 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.	
<b>Project Completion Date</b>	31/10/2024
<b>Summary of works in last quarter:</b> Not yet contracted. Project will be initiated on acceptance.	
<b>Summary of works in next quarter:</b> Not yet contracted. Project will be initiated on acceptance.	
<b>Additional Comments:</b> N/A	



<b>TORI</b> SHET-RI-088 - Loch Buidhe - Dounreay 275kV Reinforcement	<b>Scheme</b> Loch Buidhe - Dounreay 275kV Reinforcement
<b>Overview of Works</b> 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.	
<b>Project Completion Date</b>	31/08/2025
<b>Summary of works in last quarter:</b> System Studies in Progress.	
<b>Summary of works in next quarter:</b> System Studies in Progress.	
<b>Additional Comments:</b> Project is at early conceptual design stage.	



<b>TORI</b> SHET-RI-089 - Farigaig SGT2 Upgrade	<b>Scheme</b> Farigaig SGT2 Upgrade
<b>Overview of Works</b> Upgrade the 120MVA 275/132kV SGT2 at Farigaig substation to a 240MVA SGT, to facilitate the connection of generation in the area.	
<b>Project Completion Date</b>	31/08/2024
<b>Summary of works in last quarter:</b> Project on hold following request from developer to delay. Mod App is expected.	
<b>Summary of works in next quarter:</b> Development team to look at possible connection options and potential new connection route to respond to NGENSO and Developers proposals.	
<b>Additional Comments:</b> N/A	



<b>TORI</b> SHET-RI-090 - Coupar Angus - Errochty 132kV Reconductoring	<b>Scheme</b> Coupar Angus - Errochty 132kV Reconductoring
<b>Overview of Works</b> 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 <sup>2</sup> ) and will operate at 75°C to give a minimum summer pre-fault rating of 176MVA.	
<b>Project Completion Date</b>	31/10/2026
<b>Summary of works in last quarter:</b> Project on hold.	
<b>Summary of works in next quarter:</b> Project on hold.	
<b>Additional Comments:</b> N/A	





<b>TORI</b> SHET-RI-093 - East Coast Phase 2 - 400kV Reinforcement	<b>Scheme</b> East Coast Phase 2 - 400kV Reinforcement
<b>Overview of Works</b> 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).	
<b>Project Completion Date</b>	31/10/2026
<b>Summary of works in last quarter:</b> 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.	
<b>Summary of works in next quarter:</b> Continue and conclude EIA to support an application for consent for the OHL, including securing necessary land rights for the application to be determined. Commence procurement activities to identify a competent contractor to design and install the works.  Design refinement of Kintore substation to align with North East Coast detailed design following procurement of a design contractor. Consents have been submitted and monitoring of consents will be undertaken for the Kintore substation during the next quarter. The Kintore project will be taken forward by a Delivery Project manager.	
<b>Additional Comments:</b> N/A	



<b>TORI</b> SHET-RI-098 - Dunoon GL1-GL2 OHL Rebuild	<b>Scheme</b> Dunoon GL1-GL2 OHL Rebuild
<p><b>Overview of Works</b> 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>	
<b>Project Completion Date</b>	30/03/2025
<p><b>Summary of works in last quarter:</b> Awarded contract to Marine Consultant to undertake vessel study of Loch Long. Progressed routing works with WSP Environmental and Engineering Consultants. Undertook site walkovers of overhead line route options.</p>	
<p><b>Summary of works in next quarter:</b> Carry out Public Consultation. Identify overhead line alignment. Continue engagement with key statutory stakeholders.</p>	
<p><b>Additional Comments:</b> N/A</p>	



<b>TORI</b> SHET-RI-099 - Beauly-Keith 132kV Reconductoring	<b>Scheme</b> Beauly-Keith 132kV Reconductoring
<b>Overview of Works</b> 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.	
<b>Project Completion Date</b>	31/10/2022
<b>Summary of works in last quarter:</b> Overhead line reconductoring between Elgin to Keith progressing to programme. Foundation upgrade works and tower steelwork replacement progressing to programme. Replacement T49R and Nairn substation reconductoring works complete. Slackbuie South cable replacement complete, all cable works now complete. Substation design works progressing to programme.	
<b>Summary of works in next quarter:</b> Overhead line reconductoring between Elgin to Keith will continue, with completion forecast Q4 2020. Foundation upgrade works and tower steelwork replacement ongoing, with completion forecast for Q4 2020. Substation design works progressing to programme, non outage works scheduled to start Q3 2020. Keith disconnecter replacement works programmed for Q4 2020.	
<b>Additional Comments:</b> Substation primary plant replacement now scheduled for completion by Q1 2021. Outage plan amendments following Covid19 "pause" in works will be required, change in outages require approval.	



<b>TORI</b> SHET-RI-105 - Rothienorman s/s & Rothienorman - Kintore Reconductoring	<b>Scheme</b> Rothienorman s/s & Rothienorman - Kintore Reconductoring
<b>Overview of Works</b> 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).	
<b>Project Completion Date</b>	01/04/2021
<b>Summary of works in last quarter:</b> <b>Substation:</b> M&E installation substantially complete Off-line Commissioning commenced.  <b>Overhead Line:</b> Kintore circuit reconductoring complete.	
<b>Summary of works in next quarter:</b> Rothienorman Substation: M&E final installation works Civils snagging works Off-line Commissioning works  Kintore - Rothienorman - New Deer Overhead Line: Name plates being installed on Towers.	
<b>Additional Comments:</b> N/A	



<b>TORI</b> SHET-RI-106b - Connagill 2nd SGT	<b>Scheme</b> Connagill 2nd SGT
<b>Overview of Works</b> 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.	
<b>Project Completion Date</b>	31/10/2021
<b>Summary of works in last quarter:</b> Project to be initiated to begin development and engineering.	
<b>Summary of works in next quarter:</b> Project to be initiated to begin development and engineering.	
<b>Additional Comments:</b> N/A	



<b>TORI</b> SHET-RI-107 - North Argyll - Inveraray Reinforcement	<b>Scheme</b> North Argyll - Inveraray Reinforcement
<b>Overview of Works</b> 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.	
<b>Project Completion Date</b>	30/04/2025
<b>Summary of works in last quarter:</b> Initial Gate documents to be prepared and development progressed.	
<b>Summary of works in next quarter:</b> Initial Gate documents to be prepared and development progressed.	
<b>Additional Comments:</b> Project is at early conceptual design stage.	



<b>TORI</b> SHET-RI-109 - Loch Buidhe - Spittal 132kV Reconductoring	<b>Scheme</b> Loch Buidhe - Spittal 132kV Reconductoring
<b>Overview of Works</b> 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.	
<b>Project Completion Date</b>	31/10/2021
<b>Summary of works in last quarter:</b> Project on hold.	
<b>Summary of works in next quarter:</b> Project on hold.	
<b>Additional Comments:</b> N/A	



<b>TORI</b> SHET-RI-111 - Abernethy 132kV Mesh Corner	<b>Scheme</b> Abernethy 132kV Mesh Corner
<b>Overview of Works</b> 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).	
<b>Project Completion Date</b>	31/10/2022
<b>Summary of works in last quarter:</b> 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.	
<b>Summary of works in next quarter:</b> Project on hold following CBA recommendation that the works are not most economical solution. Regional Development Plan being considered for this 132kV subsystem to accommodate contracted generation.	
<b>Additional Comments:</b> N/A	





<b>TORI</b> SHET-RI-113 - Kintyre-Hunterston Subsea Cable Intertrip Scheme	<b>Scheme</b> Kintyre-Hunterston Subsea Cable Intertrip Scheme
<b>Overview of Works</b> 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.	
<b>Project Completion Date</b>	31/10/2020
<b>Summary of works in last quarter:</b> Project to be completed alongside Carradale GSP works.	
<b>Summary of works in next quarter:</b> Project to be completed alongside Carradale GSP works.	
<b>Additional Comments:</b> N/A	



<b>TORI</b> SHET-RI-115 - Melgarve 400/132 kV Substation Additional SGTs	<b>Scheme</b> Melgarve 400/132 kV Substation Additional SGTs
<b>Overview of Works</b> 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.	
<b>Project Completion Date</b>	31/10/2026
<b>Summary of works in last quarter:</b> May be required for April 2025, subject to TOCO acceptance.	
<b>Summary of works in next quarter:</b> Project now required for July 2025 and initial project documentation being prepared. Project will be passed to the Development phase.	
<b>Additional Comments:</b> N/A	



<b>TORI</b> SHET-RI-116 - Kergord - Yell 132kV Connection	<b>Scheme</b> Kergord - Yell 132kV Connection
<b>Overview of Works</b> 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.	
<b>Project Completion Date</b>	31/03/2024
<b>Summary of works in last quarter:</b> Development and engineering design work to continue.	
<b>Summary of works in next quarter:</b> Project passed to TORI-053 team to develop routing options.	
<b>Additional Comments:</b> N/A	



<b>TORI</b> SHET-RI-117 - Tealing 275kV Busbar Upgrade	<b>Scheme</b> Tealing 275kV Busbar Upgrade
<b>Overview of Works</b> 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	
<b>Project Completion Date</b>	31/12/2021
<b>Summary of works in last quarter:</b> Installation of structures and equipment ongoing on the platform along with the rebuild of Main & reserve busbar 2. Control room panel installation complete, and commissioning works commenced.	
<b>Summary of works in next quarter:</b> Main & Reserve 2 busbar energised. Outage taken on reserve busbar 1 section and demolition works commenced. Panel installation commences for next stage of the works.	
<b>Additional Comments:</b> Revised outage dates due to COVID 19 impact approved.	



<b>TORI</b> SHET-RI-118 - Orkney 132kV Infrastructure: Finstown - Hoy	<b>Scheme</b> Orkney 132kV Infrastructure: Finstown - Hoy
<b>Overview of Works</b> 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).	
<b>Project Completion Date</b>	31/10/2024
<b>Summary of works in last quarter:</b> TORI will be withdrawn. Works are no longer shared use due the termination of another project.	
<b>Summary of works in next quarter:</b> Project on hold.	
<b>Additional Comments:</b> N/A	



<b>TORI</b> SHET-RI-119 - Corriemoillie Transformer Protection Modification	<b>Scheme</b> Corriemoillie Transformer Protection Modification
<b>Overview of Works</b> 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.	
<b>Project Completion Date</b>	31/10/2023
<b>Summary of works in last quarter:</b> Development and engineering design work to begin.	
<b>Summary of works in next quarter:</b> Development and engineering design work to begin.	
<b>Additional Comments:</b> N/A	



<b>TORI</b> SHET-RI-120 - East Coast 132kV Upgrade	<b>Scheme</b> East Coast 132kV Upgrade
<p><b>Overview of Works</b></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>	
<b>Project Completion Date</b>	31/10/2024
<p><b>Summary of works in last quarter:</b></p> <p>Ongoing optioneering, CBA, design development, stakeholder engagement and whole system solutions are being progressed.</p>	
<p><b>Summary of works in next quarter:</b></p> <p>Further engineering, design development work has resulted in a date change to a 2026 completion. Customer directly impacted have been informed. CBA works continue to identify optimal pathway for the East Coast 132kV network.</p>	
<p><b>Additional Comments:</b></p> <p>N/A</p>	



<b>TORI</b> SHET-RI-121 - Charleston - Abernethy 132kV Reconductoring	<b>Scheme</b> Charleston - Abernethy 132kV Reconductoring
<b>Overview of Works</b> 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.	
<b>Project Completion Date</b>	31/10/2022
<b>Summary of works in last quarter:</b> Whole system/Innovative solutions being investigated to ensure optimal strategy and timing of network reinforcement. Changes to the generation background will be considered through the optioneering phase.	
<b>Summary of works in next quarter:</b> Whole system/Innovative solutions being investigated to ensure optimal strategy and timing of network reinforcement. Changes to the generation background will be considered through the optioneering phase.	
<b>Additional Comments:</b> N/A	





<b>TORI</b> SHET-RI-122 - Dounreay - Orkney 220kV Subsea HVAC Cable Link 3	<b>Scheme</b> Dounreay - Orkney 220kV Subsea HVAC Cable Link 3
<b>Overview of Works</b> 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.	
<b>Project Completion Date</b>	31/10/2024
<b>Summary of works in last quarter:</b> Project on hold.	
<b>Summary of works in next quarter:</b> Project on hold.	
<b>Additional Comments:</b> N/A	



<b>TORI</b> SHET-RI-123 - Shin - Loch Buidhe 132kV Reconductoring	<b>Scheme</b> Shin - Loch Buidhe 132kV Reconductoring
<b>Overview of Works</b> 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.	
<b>Project Completion Date</b>	31/12/2023
<b>Summary of works in last quarter:</b> System Studies ongoing.	
<b>Summary of works in next quarter:</b> System Studies ongoing.	
<b>Additional Comments:</b> Project is at early conceptual design stage.	



<b>TORI</b> SHET-RI-124 - 2nd Shetland HVDC Link Kergord - Rothienorman	<b>Scheme</b> 2nd Shetland HVDC Link Kergord - Rothienorman
<b>Overview of Works</b> 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.	
<b>Project Completion Date</b>	31/10/2026
<b>Summary of works in last quarter:</b> Project on hold.	
<b>Summary of works in next quarter:</b> Project on hold.	
<b>Additional Comments:</b> N/A	



<b>TORI</b> SHET-RI-126 - Kergord - Yell 132kV 2nd Connection	<b>Scheme</b> Kergord - Yell 132kV 2nd Connection
<b>Overview of Works</b> 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.	
<b>Project Completion Date</b>	31/10/2026
<b>Summary of works in last quarter:</b> Project on hold.	
<b>Summary of works in next quarter:</b> Project on hold.	
<b>Additional Comments:</b> N/A	



<b>TORI</b> SHET-RI-127 - Dounreay - Spittal 400 kV Double Circuit OHL	<b>Scheme</b> Dounreay - Spittal 400 kV Double Circuit OHL
<b>Overview of Works</b> 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.	
<b>Project Completion Date</b>	31/10/2029
<b>Summary of works in last quarter:</b> Subject to Connection Infrastructure Options Note (CION) process.	
<b>Summary of works in next quarter:</b> Initial Development and optioneering works to progress.	
<b>Additional Comments:</b> N/A	



<b>TORI</b> SHET-RI-128 - Caithness-Peterhead Transmission Reinforcement 2250MW HVDC Link	<b>Scheme</b> Caithness-Peterhead Transmission Reinforcement 2250MW HVDC Link
<b>Overview of Works</b> 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).	
<b>Project Completion Date</b>	31/10/2029
<b>Summary of works in last quarter:</b> Subject to Connection Infrastructure Options Note (CION) process.	
<b>Summary of works in next quarter:</b> Initial Development and optioneering works to progress.	
<b>Additional Comments:</b> N/A	



<b>TORI</b> SHET-RI-129 - Farigaig SGT1 Upgrade	<b>Scheme</b> Farigaig SGT1 Upgrade
<b>Overview of Works</b> Upgrade the 120MVA 275/132kV SGT1 at Farigaig substation to a 240MVA SGT, to facilitate the connection of generation in the area.	
<b>Project Completion Date</b>	01/04/2024
<b>Summary of works in last quarter:</b> Initial Development and optioneering works to progress.	
<b>Summary of works in next quarter:</b> Initial Development and optioneering works to progress.	
<b>Additional Comments:</b> Project is at early conceptual design stage.	



<b>TORI</b> SHET-RI-130a - North Argyll - Craig Murrail 275kV Operation	<b>Scheme</b> North Argyll - Craig Murrail 275kV Operation
<b>Overview of Works</b> 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.	
<b>Project Completion Date</b>	31/10/2025
<b>Summary of works in last quarter:</b> Initial Governance documents to be prepared and development progressed.	
<b>Summary of works in next quarter:</b> Initial Governance documents to be prepared and development progressed.	
<b>Additional Comments:</b> Project is at early conceptual design stage.	





<b>TORI</b> SHET-RI-130b - Craig Murrail - Crossaig 275kV Operation	<b>Scheme</b> Craig Murrail - Crossaig 275kV Operation
<b>Overview of Works</b> 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.	
<b>Project Completion Date</b>	31/10/2026
<b>Summary of works in last quarter:</b> Initial Governance documents to be prepared and development progressed.	
<b>Summary of works in next quarter:</b> Initial Governance documents to be prepared and development progressed.	
<b>Additional Comments:</b> Project is at early conceptual design stage.	



<b>TORI</b> SHET-RI-131 - Brechin 132kV Extension	<b>Scheme</b> Brechin 132kV Extension
<b>Overview of Works</b> Construct 2 new circuit breakers at Brechin Grid Supply point.	
<b>Project Completion Date</b>	31/10/2024
<b>Summary of works in last quarter:</b> Project being considered as part of the East Coast 132kV Upgrade Strategic Optioneering	
<b>Summary of works in next quarter:</b> Further engineering, design development work has resulted in a date change to a 2026 completion. Customer directly impacted have been informed. CBA works continue to identify optimal pathway for the East Coast 132kV network.	
<b>Additional Comments:</b> N/A	



<b>TORI</b> SHET-RI-132 - Beauly-Blackhillock High Temperature Reconductoring	<b>Scheme</b> Beauly-Blackhillock High Temperature Reconductoring
<b>Overview of Works</b> 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.	
<b>Project Completion Date</b>	31/10/2026
<b>Summary of works in last quarter:</b> Subject to acceptance.	
<b>Summary of works in next quarter:</b> Subject to acceptance.	
<b>Additional Comments:</b> N/A	