SSEN Transmission
Digital Action Plan
June 2023 update

Scottish & Southern Electricity Networks

TRANSMISSION

Scottish Hydro Electric Transmission plc

Contents

Executive Summary

SSEN Transmission's Digital Action Plan continues to underpin the vision that will support the delivery of the products and services that will allow us to achieve our expected outcomes.

SSEN Transmission continues to put stakeholders at the heart of our RIIO-T2 Digital Investment Plan. We have made excellent progress over the last six months delivering new products and capabilities as part of our Digital Action Plan.

In parallel to delivering our Digital Action Plan, we have enhanced our team with additional digital skills, knowledge and expertise to ensure we successfully deliver our ambitious Digital Programme over the remainder of the RIIO-T2 period.

We have regularly reviewed our Digital Strategy to ensure it has remained relevant over the last two years and that any learnings during this time have been adopted. Our Digital Strategy has largely remained consistent and we are confident of delivering all of the planned themes and outcomes. Similar to previous Digital Action Plan updates, we have provided an overview of what we have achieved over the last six months since our last action plan update in December 2022 (pages 4-5).

The delivery structure of our Digital Programme has remained consistent with our six value streams supporting the relevant business areas to ensure we achieve the appropriate outcomes and value. This will continue to be the delivery approach we adopt for our plan over the next year. We have detailed these key deliverables on pages 6 to 9. These continue to ensure that we deliver increased customer satisfaction, specifically in relation to capital delivery and our intention to meet our Net Zero objectives.
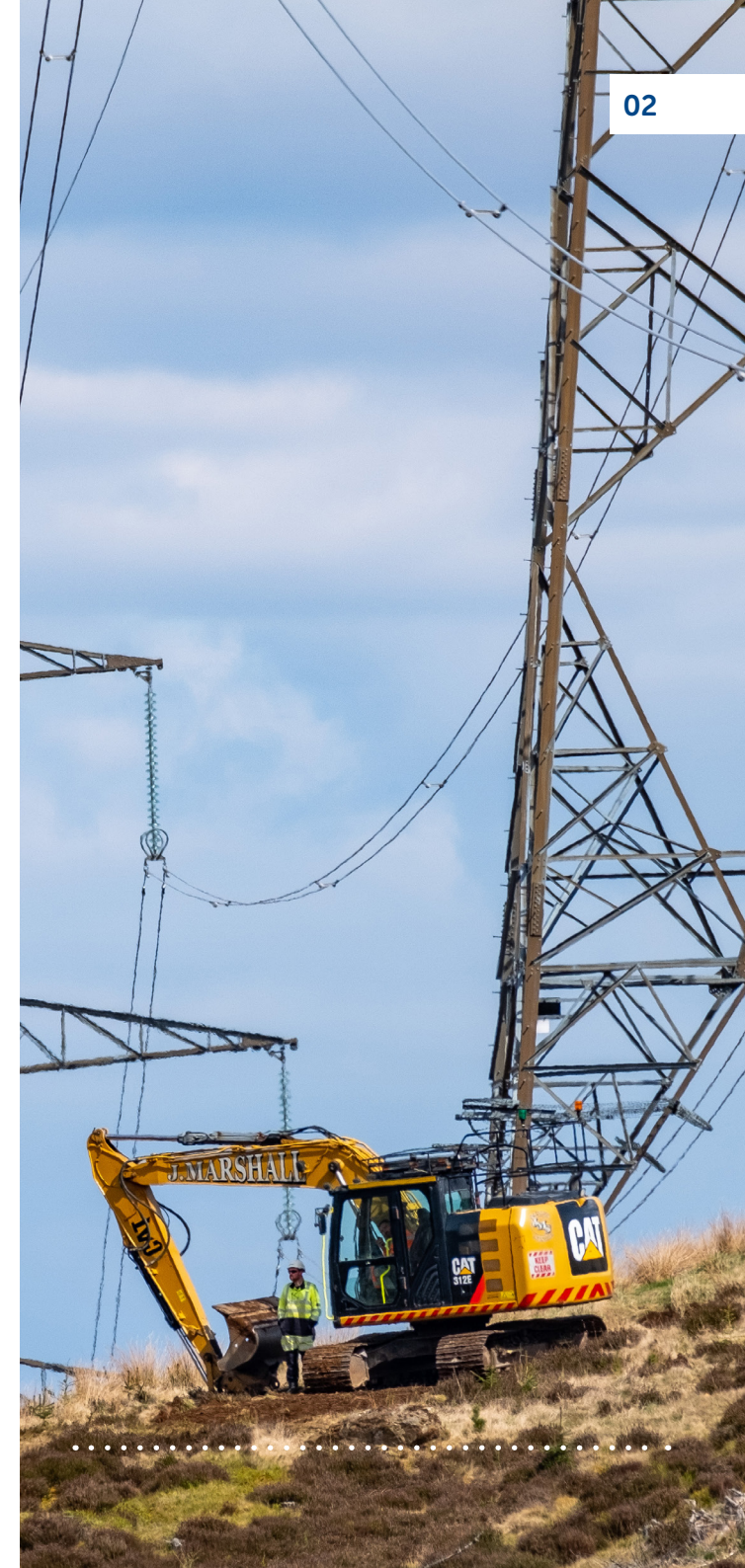
Finally, we encourage all stakeholders with any feedback or questions to get in touch here: transmission.stakeholder.engagement@sse.com

J. McLean

James McLean
Director of Technology & Digital,
SSEN Transmission

The vision behind our products and services

Our overall Digital vision remains unchanged. We are increasingly focused on ensuring that Data sits at the heart of everything we are doing to ensure we present consistent and accessible information to our customers and stakeholders.

Our Value Stream...	Guided by a specific vision...
Customer & Stakeholder and Commercials	Provide a high quality and transparent multi-channel service to stakeholders, with increased assisted and self-serve capabilities underpinned by an integrated group of fit-for-purpose platforms for entering and accessing information and insight
Projects & Capital Delivery	A modern, slick and interactive business moving away from the paper and excel driven processes and embracing the modern technology and practices to deliver at scale and in line with growth of demand in projects
Network Planning	Maximise the value and the opportunities presented by having easy access to a wide range of data from across the organisation to increase system performance, and support future network modelling & forecasting, RRP, system planning, connections and innovation
Asset and Operations	Enhance existing and deliver new capabilities across Asset & Work Management that will drive business and asset performance, resulting in decreased network risk and setting the foundation for further enhancements in T3
Enabling IT	Creating IT capabilities that provide fit for purpose suite of applications, supporting the end to end business processes and enable the business to deliver the outcomes as efficiently as possible
Enterprise and Corporate	Creating and delivering cross functional solutions that facilitates better information sharing, enhanced control, improved safety and improved financial insight

...delivering products and services

Customer Self Service

Pre Connection Info for Customers

Website Refresh

Integrated Project Management

Level 2 BIM Achievement

Network Modelling

Total Work Management

Field Force Mobility

Customer Case Management

Smarter Asset Management

Inventory Management

Integrated Data Platform

Application Integration Platform

Workflow Automation

What we have achieved in the last six months

Value Stream

Customer & Stakeholder

- The Personas & Journeys project successfully completed, with deliverables being utilised by the CRM project
- Customer Relationship Management (CRM) discovery sessions have now completed on customer contact management and case management to support our connections processes. This will deliver a pilot system by the end of this year followed by iterative enhancements to extend the use of online self service processes for our customers
- We have reforecast our Online Pre-Connection mapping website capabilities to later in our T2 plan to allow our data enhancement projects to deliver the required data sets to support this

Projects & Capital Delivery

- Our comprehensive Integrated Project Management (IPM) solution and product selection is expected to complete in June 23. Followed by the implementation during 23/24 and 24/25
- The Building Information Modelling (BIM) plan has been baselined and target milestones met, first key milestone is the completion of the Common Data Environment (CDE) assessment, this will ensure that all data and artefacts are all managed to BIM Level 2 standards
- The initial scoping session for the Environmental management solutions and data aggregation has been pulled forward into Quarter 2 of 2023 and completed. This will consolidate all environment management data and processes into a single solution

Network Planning

- Our Value stream to look at system planning and performance has now been fully mobilised
- We have completed our Architecture vision to support the value stream and projects have now been started
- The Power quality monitoring software project has accelerated to bring value as quickly as possible to the business

Value Stream

Asset Management & Operations (IT)

- We have introduced a new Condition Based Risk Monitoring capability allowing us to invest further in functional enhancements and the deployment of a web interface that further improves the end user experience.
- We restructured the Asset management, Geospatial and Condition Based Risk Monitoring system projects to deliver early in the first half of 2023. We will look to introduce further integration across these systems by the end of 2023.
- We have completed product selection to support mobile phone capability for our field staff to more efficiently manage asset and maintenance activities.

Asset Management & Operations (OT)

- Operational field laptops are now deployed across Technical Services, to enhance in-field operations and security. This provides full mobile capability for our transmission colleagues
- PI (operational data historian) separation due to go live in July 23, enabling follow-on phases for Smart Monitoring real-time condition monitoring capability for office and field users
- We will soon establish Phasor Data communications with National Grid, providing post event analysis based on real-time monitoring of our Network
- We have completed Alarms Configuration and Visualisation work within PowerOn, our Network Management System, providing enhanced data and situational awareness of Network status within our Control Rooms

Enabling IT

- We continue to develop our data governance and controls though our Master Data Management project. Our Data Owners and Data stewards are actively supporting this. We have kicked-off our Open Data portal project to facilitate the external sharing of data in-line with Ofgem data best practice.
- Our Integrated Data Platform project also continues to progress and we are now prioritizing use cases to consolidate data from our core systems into the data platform to drive insights from the data we hold.
- We have also completed our new system to support enhanced Safety, Health and Environment project with all staff and partners able to log incidents via a mobile app.

The Products and Services that we will be working on

Our plans are to mobilise and execute the following products and services, leading to outcomes for both our internal staff and external customers. As with customers, we are focusing on making it easier for them to engage with us, see relevant information, especially in the context of connection, and set the platform so that we can share more data with them. For our internal staff our focus is on making work easier, safer and more efficient, whilst providing the tools to our staff (especially operations) to collect data more effectively and analyse information. The Product and Services we outline below are either being delivered or being mobilised during the said period.

Value Stream ↓	Product and Service ↓	Description & Status
Customer and Stakeholder	Pre-Connection Information	As part of the initiatives to consolidate and rationalise data across our core systems we will ensure that we consider pre-connection information as a key priority. This project will support a key business outcome of Transparency by ensuring we provide improved customer information earlier in the customer process.
	Website Refresh	We continue to optimise and enhance our website to provide increased insights we gain from the new platform and from our customer and stakeholder feedback. We will look to integrate our website with our customer & stakeholder platforms to ensure this is the single entry point for our customers and stakeholders to self serve and ensure they can find the information they require quickly and intuitively.
	Customer Relationship Management	We have consolidated the Customer Connections and Customer case management projects into a single Customer relationship management project to ensure we are taking a holistic approach to delivering against our customer needs. We have captured our key requirements and expect to have a pilot system in-place by December 23. We will then continue to further extend the platform to manage additional aspect of customer engagement and management.
Capital Delivery	Integrated Project Management	We will complete the delivery partner and product selection for our Integrated Project Management solution in June 23. We will immediately move into project delivery to implement the solution and start to realise the value from this new capability. Enhanced Schedule and cost management remains a key deliverable of this project. We expect the first phase to complete in December 23.
	Building Information Modelling	Our Building information modelling project is progressing at pace. We have completed the assessment of our common data environment, which makes up the systems that are responsible for managing all of the information and artefacts that are required to be standardised to meet BIM level 2. The project has started looking at ensuring that these standards are adhered to across all of our large capital projects.
Network Planning	Network Modelling	To ensure Transmission can grow effectively and meet our growing customer needs, It is essential that the Planning and Commercial team have the right technology and processes in place. With that in mind, we have now mobilised four key projects to ensure we operate more efficiently and effectively for our customers. One of these key projects will see our transition from the current modelling system (PSSE), to a new more capable system called Power Factory. This transition to Power Factory, complimented by new processes, will provide new capability to the business, reduce manual effort and maximise output within the business.
Asset Management and Operations	Integrated Asset & Work Management	With business separation completed and our core systems in place, we are focusing on delivering functional enhancements to our risk and geographical information systems to prepare for integration between these tools and our Enterprise Asset Management solution. Work is ongoing to verify asset data maturity in readiness for leveraging the additional benefits that can be achieved through the exploitation of these fully integrated core systems. The road map for exploiting the Enterprise Asset Management system to deliver enhanced asset, work, and inventory management functionality is being finalised together with an appropriate implementation plan. We have selected the mobility solution that will be used to complement the work and asset management functionality, ensuring the accuracy and completeness of information supporting and informing asset strategy and performance management in the future.

Value Stream ↓	Product and Service ↓	Description & Status
Asset Management and Operations (Continued)	Operations Management	Over the next six months we will have separated our Corporate PI system and be advanced in enabling Smart Monitoring through PI, bringing real-time data from the field to support asset condition intervention and analysis by the end of this year. Additionally, the first stage of our new Control Room facilities strategy is now at the execute stage, which will see a geographical split in Perth Control Room capability by establishing a Disaster Recovery site in Inverness to be completed within the next nine months. In parallel to this we are developing our final designs for the IT components of the new Transmission Control Centre to be built in Perth over the coming two years. Finally, by the end of the calendar year we will have provided the Front-End Processor capability to enable field device upgrade and business separation, providing enhanced resilience to Network monitoring activities.
Enabling IT	Application Integration Platform	The preferred Applications Integration product has been identified, with the BIM project in the Capital Delivery value stream identified as the early use case. Our new application integration capability will remove our legacy point to point systems integration enhancing the flexibility and maintenance of our systems.
	Workflow Automation	We continue to deliver workflow automation through digitising off-line processes using Power BI, Power Apps and the Microsoft suite to meet our stakeholder requirements. These changes continue to be done using an agile approach where we prioritise changes with the highest value to our customers, stakeholders and internal teams.
	Integrated Data Platform	We are actively working to upgrade and introduce further enhancements to our integrated data platform to ensure we have the flexibility to make changes more quickly. In parallel to this we continue to identify data sets from our core systems that can be transferred into the IDP to ensure that we can derive deep insights into the data we hold with the ambition that we can share this data more widely across our customer, stakeholders and partners.
	Open Data Portal	The project has been kicked off, with a preferred product identified and work ongoing on prioritise early data sets to be shared with external stakeholders.
	Master Data Management	The project has catalogued over 1800 key data elements across the Transmission business including documenting glossaries for data and metadata to support data users, triage data to support presumed open data principles, measuring, and improving data quality. Data quality / cleansing tools are being evaluated to support this process. The project will support the Digital Strategy and Action Plan deliverables and support the embedding of Ofgem Data best Practice Guidance into the SSEN Transmission business.

In the next page, we have shown a Milestone plan. The plan shows the key millstones we will deliver across 23/24 into the first half of 24/25, as they relate to the products and services above. We hope through this approach, we are able to show our stakeholders what clear outcomes will be provided as a result of our digital activities.

This plan shows the key milestones we will reach over Q1 FY23-24 / Q2 24-25

	Q1 FY 23-24	Q2 FY 23-24	Q3 FY 23-24	Q4 FY 23-24	Q1 FY 24-25	Q2 FY 24-25
Customers and Stakeholders	CRM Personas & Journeys Output Tractivity Data Migration Complete Case Management Kick Off Tractivity Stakeholder Mgmt Complete CRM Design Complete		Stakeholder Mangement Complete CRM Procurement Review CRM Pilot Complete	Pre-Connection Heat Map Status Review – Dec 23 CRM Enduring Solution Sprints Start – Start of Q4 23-24	CRM Enduring Solution Sprints Continue – Start of Q1 FY 24-25	
Projects and Capital Delivery	BIM Phase 1 Complete EGL2 Collaboration tooling complete	IPM Phase 1 Complete Design IPM Discovery Complete EGL2 JV in a box	BIM Phase 1 Output Assessment EMS Gate 1 Completion. Scope, architecture and Procurement strategy EDA Gate 1 Completion. Scope, architecture and Procurement strategy	BIM Phase 2 Complete IPM Qtr 4 FY 23-24 Delivery	IPM Qtr 1 FY 24-25 Delivery	IPM Qtr 2 FY 24-25 Delivery IPM Qtr 3 FY 24-25 Delivery
Network Planning	DA&R Data Requirements and Discovery Define High Power Compute Power Quality Management 1st Phase - Centralise Data BNDPM Build Databases Phase 1	DA&R Complete Digital Strategy BNDPM Centralise Data Sets for Modelling Phase 1 NMST Define System Analytics (Power Factory) Requirements	NMST Define Modelling Use Case Roadmap BNDPM Centralise Data Sets for Modelling Phase 2 Power Quality Management 2nd Phase - Visualisation		NMST Use Case - Data Modelling Phase 1 BNDPM Build Databases Phase 2 Implement High Power Compute	NMST use Case - Data Modelling -Phase 2

This plan shows the key milestones we will reach over Q1 FY23-24 / Q2 24-25

	Q1 FY 23-24	Q2 FY 23-24	Q3 FY 23-24	Q4 FY 23-24	Q1 FY 24-25	Q2 FY 24-25
Assets & Operations Management	PC Field Complete DR Site Phase 1 Execution Start	Maximo TWM Strategy & Design Complete Maximo Mobility Strategy Completed Network Switching Mobilisation Phasor Production Go-Live FEP Phase 2 Mobilisation ICCP Mobilisation Control Centre Execution Phase Start Smart Monitoring Implementation Kick-off Corporate PI Go-Live	Maximo-GIS Integration Complete Maximo/GIS/CBRM Interface Initiation Alarms P&R Go-Live	Maximo CBRM Integration Complete Subsea Survey Project Complete FEP Phase 2 Complete	Linear Assets - Underground & Subsea Cables Initiation Asset Investment Optomisation Initiation DR Site Phase 2 Mobilisation	
Enabling IT, Enterprise & Corporate		IDP New Cloud based Dev environment available IDP Use Case 1 Complete (POC) MDM Data Catalogue Complete MDM DQ Tool selected ODP Supplier Selection Complete Workflow Automation Delivery 4 Complete	IDP Source system integration to Dev environment	ODP - live (Manual load)	IDP New Cloud based Production environment available IDP Source system integration to Prod Environment IDP Use Case 1 (Prod) Complete Application Integration Commerce Scoping	

Understanding customer and stakeholder views

Getting to know our customers and their journeys better — and next steps

In March 2023, we successfully concluded our 'Personas and Journeys' customer research project in collaboration with leading research agency, CX Partners. To pinpoint the different personas involved in customer connections and the ongoing management of renewable generation assets, we engaged and interviewed 18 participants across a range of Onshore Wind and Battery Storage businesses. This project delivered useful insights on our customers, their individual needs and the journeys our customers go through from their perspective. We have now translated the insight captured from customers into a comprehensive list of service improvements and system requirements for our upcoming Customer Relationship Management (CRM) system that we will now progress into tangible improvements to the service we provide to our customers. Our Customer Insights Team members were also upskilled during the 'Personas and Journeys' project to make this valuable research capability available in-house on an enduring basis.

SSEN Transmission has now engaged an 'inner circle' Microsoft Solutions Partner to support us with the development of our new pilot Customer Relationship Management system (CRM). Currently, we are finalising the Discovery phase of this engagement to set out the priority system features our customers and colleagues will benefit most from in readiness of their development and deployment. Collaboration is critically important to the success of our CRM project and we have engaged with National Grid ESO on potential system integrations as we are keen to share and import useful data seamlessly across our IT systems. We will continue to engage with National Grid ESO as we progress the development of our CRM.

We aim to deliver an in-house CRM for our people to use in the coming months with the first version of our external portal for a select group of customers to access by the end of 2023.

Listening to customers and responding with change

We are thrilled to share that we are receiving excellent feedback from customers in relation to our new online pre-application call request form that we launched in November 2022. In their feedback, our customers have complimented our speed and the form's ease of use, with comments describing it as a "super experience", "terrific" and "much quicker". Our employees are seeing the benefits too, reducing their administration time and freeing our people to focus on taking great care of our customers. In April 2023, we also responded to customers' calls to make co-location of their development projects easier to explore through a new co-location and joint working web form.

More updates for customers and stakeholders

Recent website updates

- In March 2023, we migrated all of SSEN Transmission's innovation projects information from SSEN Distribution's website to our own website, so that stakeholders can locate this information in one place.
- Customers and stakeholders can now view our 2030 infrastructure projects collectively and understand how they relate to one another in our new dedicated web space.
- Our engagement teams are now making use of the events section of our new website which lets interested stakeholders view upcoming and past events. Our events are now linked to our dedicated project pages for the very first time too.
- With Google Analytics moving to GA4, we are now making preparations to adopt the new standard and ready ourselves to utilise data analytics to improve our website experience.

Accessing this document and other information:

We understand the value of involving diverse groups of people in our work and the importance of being accessible and easy to deal with. As a stakeholder-led organisation that works to Account Ability's AA1000 Stakeholder Engagement Standard, SSEN Transmission is committed to continuously improving its stakeholder engagement practice and processes to make sure we are inclusive and accessible throughout your engagement with us. If you would like a printed copy of this document or require it in an adapted format, such as large print, please get in touch so that we can accommodate your preferences. We also offer the Recite Me assistive toolbar to help provide an accessible website that lets you customise your digital experience to suit your own specific needs. Recite Me offers customisable styling features, multiple reading aids, and a useful translation tool which can be launched by clicking the yellow treble-A icon on our website.

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