

# SSEN DIGITAL ACTION PLAN

June 2022



Scottish & Southern  
Electricity Networks

Powering our  
community



# FOREWORD

Digitalisation is a critical enabler of Distribution System Operation (DSO) functions, efficiency improvements and delivery of wider benefits and value to customers and stakeholders in our RIIO-ED2 Business Plan. We are continuing to work with Ofgem this year to determine the final projects and initiatives that will be funded.

Whilst much of our investment now and into RIIO-ED2 is below the surface in organising our business, understanding customer journeys, improving data and processes, growing digital platforms, capabilities and transitioning towards agile delivery, it is all necessary to enable us to meet your needs in an efficient way and to a standard you expect.

As well as building our core capability we have engaged our customers, industry peers, policy makers and digital experts in order to better understand our customer and stakeholder needs, the products and services that serve those needs, and the digital capabilities we need to utilise, within or outside of our business, to deliver whole system efficiency and value.

We also recognise that we need to lead and have a positive impact on society. On the highest priority challenges such as net zero emissions and supporting vulnerable customers, we are helping stakeholders understand the opportunity of working with us, using our data, and becoming part of our network. Combined, this shapes our action plans and priorities which ensures we invest in areas that deliver benefits to stakeholders and broader society.

In December 2021, we updated our Digital Action Plan, first published in December 2020, which outlines the activity we are undertaking to achieve our Digital Strategy and Vision. Our Action Plan is our commitment to you, your service catalogue describing the digital products provided by SSEN and wider industry. It describes the future products and services we want to develop, based on our understanding of what is most valuable to our customers, stakeholders and communities.

Our plan is shaped by your feedback and continued engagement and developed in collaboration with partners from across our ecosystem.

Our Digital Action Plan is a 'living roadmap' that will be updated at least every 6 months to show progress and changes against planned actions. It will continually evolve, open to being shaped by your needs and growing clarity on how our industry will operate in the RIIO-ED2 price control period (2023-2038).

Our latest Digital Action Plan has transitioned into an [online roadmap](#) and website to enhance ease of use and experience. Previous versions can be found on [our website](#). We have developed our Digital Strategy and Action Plan (DSAP) using Ofgem's DSAP guidance and in line with our own set of Principles, and we look forward to continuing this journey with you.

SSENs Digital Strategy and Action Plan Principles will inform our decision making as we realise our digital strategy

1. **Driven by need** – what is needed by our customers, stakeholders and to deliver broader policy goals and ambitions for the UK
2. **Prioritised by value** – we will invest where there is a clear case to do so, and ensure we deliver in a cost efficient way
3. **Tailored to our stakeholders** – our services will be specific to those that will use them most.
4. **Committed to enabling an affordable transition to net zero** – we must ensure we continue to progress the collective journey to net zero, digitalisation is a key enabler

## Andrew Roper

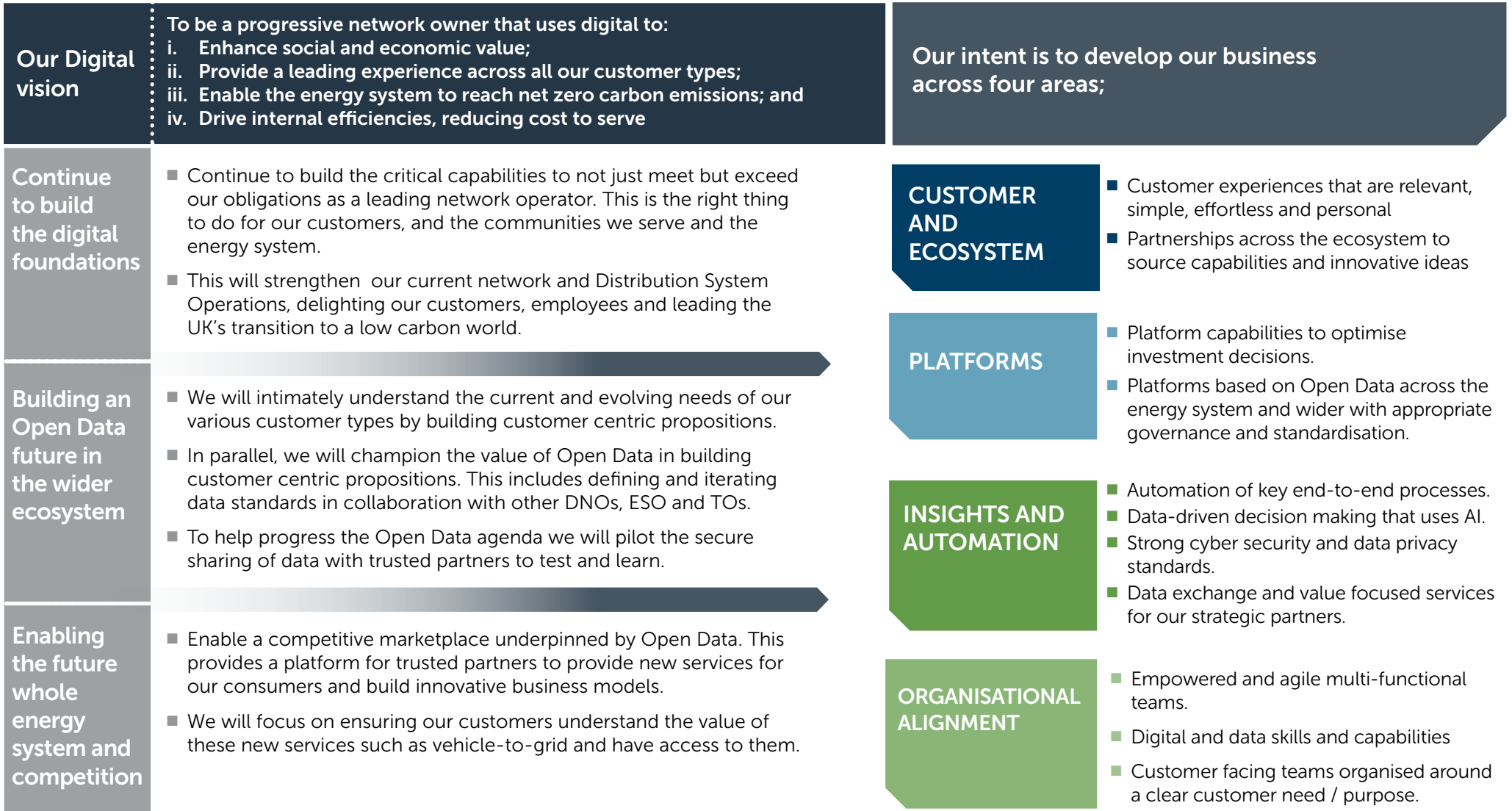
Distribution System Operations Director,  
SSEN Distribution





# OUR DIGITAL STRATEGY

We aspire to be at the forefront of the future energy system. To do so, digital will continue to play an important role in realising our aspiration. We are several years into our digital journey and are now seeing the benefits of our strategic investments in digital capabilities.





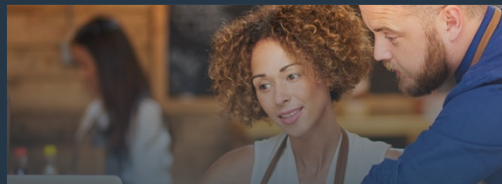
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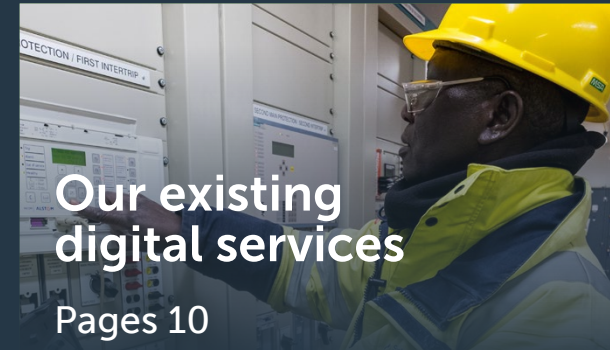
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## OUR DIGITAL ACTION PLAN



### Our Digital Roadmap

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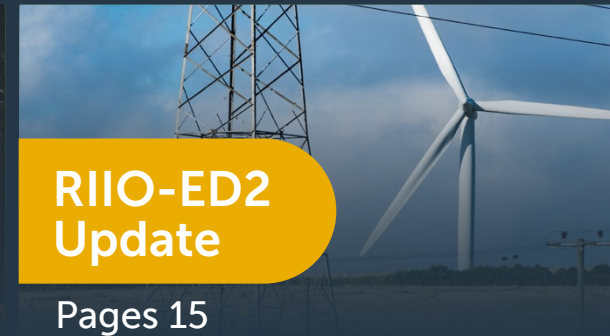
### Our existing digital services

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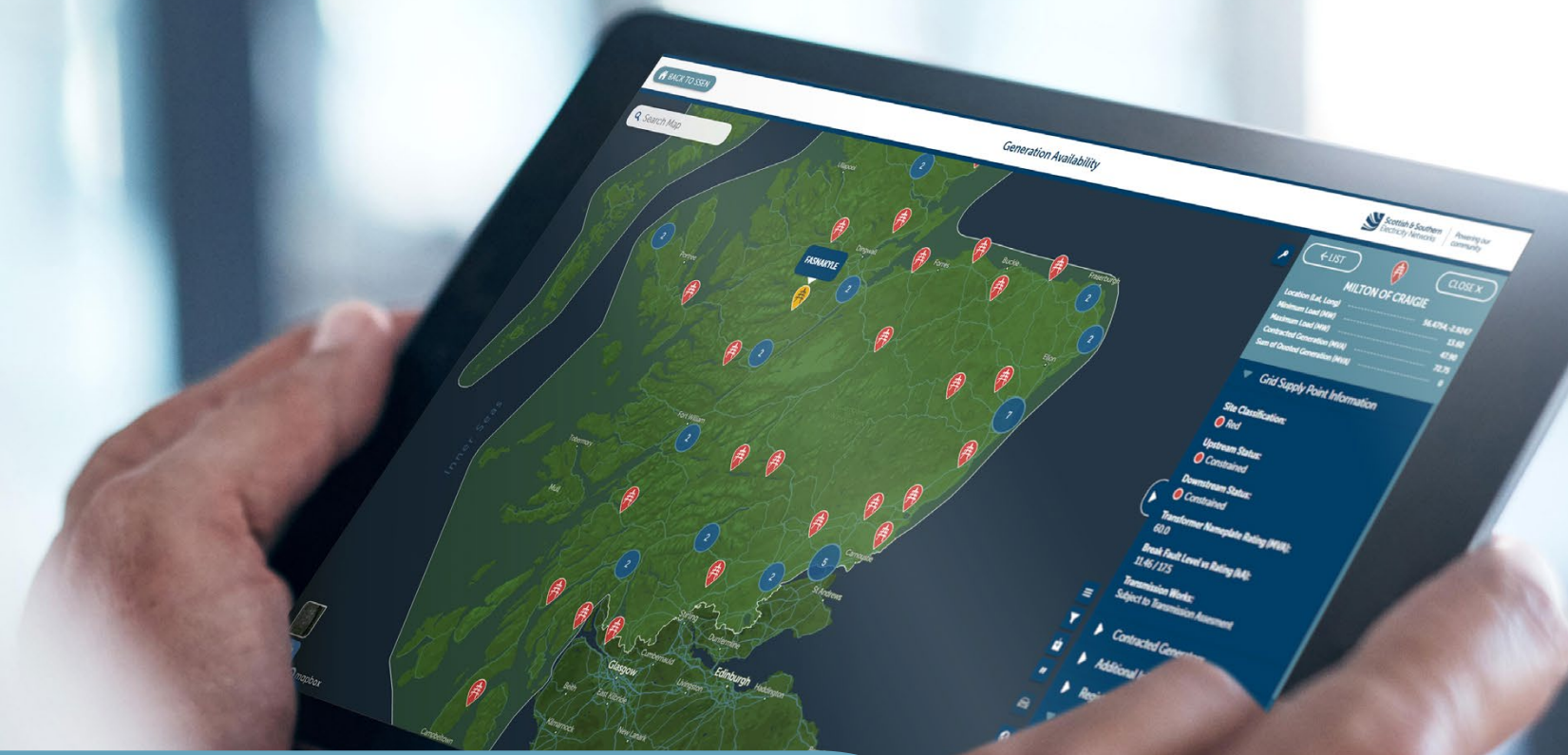
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## OPEN TO YOU



### How you can shape our DSAP

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# INTRODUCING OUR DIGITAL ACTION PLAN



# INTRODUCING OUR DIGITAL ACTION PLAN

Our Digital Action Plan brings to life a key aspect of our Digital Strategy, summarising the products and services within our 'Customer and Ecosystem' strategic commitments

We believe that compelling customer experiences should be anchored in a deep understanding of both the current and future needs of our 3.8m homes and businesses, as well as our other consumers and stakeholders. As we identify and address needs in the near term we must always be working towards the long term goal of net zero carbon emissions in partnership with our wider ecosystem, helping to realise broader societal benefit through our investments.

To evolve our Digital Strategy and Action Plan, we have engaged a wide range of customers, stakeholders and experts, and developed draft personas to capture their needs, priorities and expectations from digitalisation.

Our Digital Strategy and the propositions it includes guide us in the development and delivery of the products and services outlined in this Action Plan. It also provides a guide towards those products that may be needed in future. For all products and services, we evaluate who will benefit, when they will be available and how we will measure success.

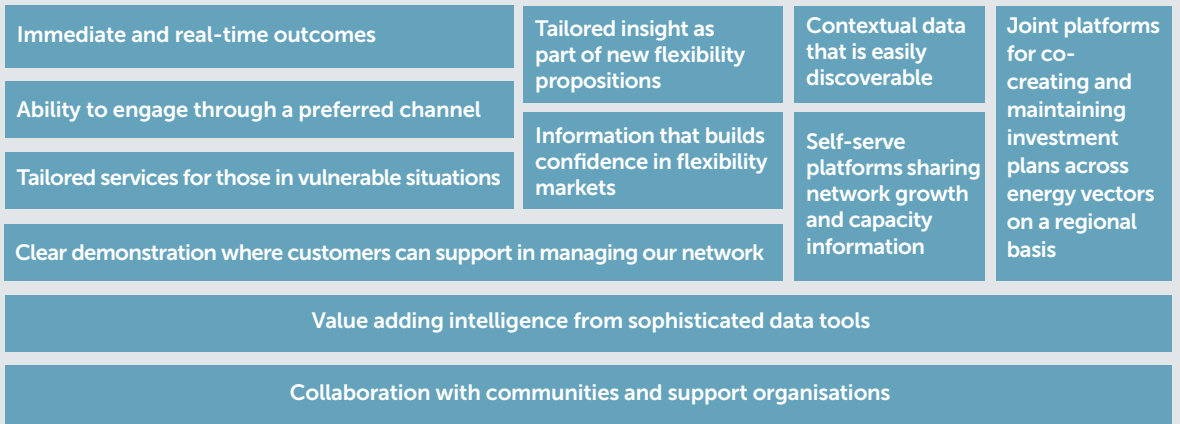
We also provide an overview of the significant work underway internally to develop our digital and data capabilities, laying the foundations that will deliver on our RIIO-ED2 commitments and broader role in realising net zero emissions.

Recognising that digital transformation is a journey of evolving knowledge, innovation and collaboration, we will update our Digital Action Plan every six months to report progress against goals, adding new products and services as informed by stakeholder engagement. Since our first publication in December 2020, we have listened to stakeholder feedback and iteratively improved the format of our Action Plan, now offering both website and PDF content, including an interactive and dynamic [online roadmap](#) of products and services.

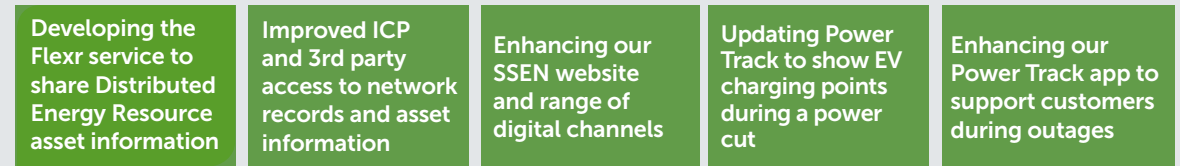
## 1 Our actions are shaped by our customers and stakeholders



## 2 Based on their needs we have defined a set of propositions



## 3 And are delivering a set of products and services



## 4 All aligned to our RIIO-ED2 Strategic priorities





# OUR JOURNEY TO CREATE CUSTOMER INSIGHT AND DESIGN NEW DIGITAL PROPOSITIONS

We will validate and mature our personas through further customer research and data, and use this as an input to a customer-centric design approach.

## Our work so far

Using the data and research from our Stakeholder Engagement and touchpoints we have with our customers every day, we have created a rich set of insights on each of our segments.

We are now building out a set of personas across these segments that capture our customers' and stakeholders' digital needs.

We have developed the foundations to continually evolve these personas and use them in the design and delivery of targeted products and services.

Business Customers  
Flexibility Services Providers  
Community and Society  
Additional support or adapted services

Consensus-based Personas

Q4 2020

Shared in our 2020 Digital Strategy

## Our ambition in the next 18 months and beyond

We understand that although we have a draft provision of personas in place, we need to develop our maturity further in truly understanding the needs, expectations and behaviours of our customers and stakeholders.

As part of an SSEN wide programme to develop our understanding of our customer base, and transform the customer journeys' of the future, we have partnered with ExperienceLab, a Customer Experience Consultancy to develop a wide set of deep-insight personas across our entire business. We've made good strides in this project, having been able to successfully map the experience and personas for our Connections business.

We have mapped the majority of our customer base to a new set of personas and aligned this to our digital strategy to ensure we're building digital propositions based on the evolving needs of our customers.

We are developing a customer-led service-design capability to embed customer insights into every proposition, product and service that we provide to external customers, and stakeholders and our internal colleagues.

Data driven Personas

Q4 2021

To inform our RIIO-ED2 Plan, priority business areas and Digital Strategy Action Plan Update

In-depth reusable Persona framework

Q4 2023

Supporting a wide range of business activities including our Digital Action Plan

Embedded Persona framework

Q4 2025

An essential tool as we realise the intent described in our Digital Strategy

## Preparing for the future - staying ahead of the curve

We recognise that both the digital landscape around us, and the needs of our customers and stakeholders, are changing at rapid speed, and it's important we keep up with the evolving world around us.

To ensure our services fit for now, and the future, we've embarked on a business wide exploration of customer journey mapping, focused on developing the journeys of the future for our customers. Using rich and deep customer insight, supported by customer experience principles, both in and out of industry best practice and enhanced stakeholder engagement, we've started to build blueprint designs for what these journeys may look like.

It is through these optimal journey designs that we will build on our digital experience roadmap, with a core principle being that future digital propositions are delivering value and benefits with customer requirements at the heart.



# PUTTING DIGITAL INCLUSION AT THE HEART OF OUR STRATEGY



The world of digital is evolving rapidly and our digital strategy and action plan sets out how we will develop our digital services to keep pace with the growing needs, expectations, goals and behaviours of our customers. Although over 90% of the UK population have access to the internet, and the majority of the population demonstrate good levels of digital maturity, we are acutely aware of a proportion of our customer base who may not be digitally native and therefore unable to access our digital services in the same way as everyone.

From customers with disabilities or learning difficulties, to people living in rural areas or where English is not a first language, all of these are examples of where digital exclusion is more likely.

Lloyds bank UK Consumer Digital Index presents an important review of digital maturity in the UK and most notably calls out some important research;

- 11.9m people (22% of the population) do not have the digital skills needed for everyday life in the UK
- by 2030 it is predicted that 4.5m people (8% of the population) will remain digitally disengaged
- people with a disability are 35% less likely to have essential digital skills for life

With this in mind, there is a principle at the core of our strategy and action plan; we never leave a customer behind. This means that we constantly think about how our services are designed to ensure that they are inclusive for all our customers. In most cases, we're able to build our digital services in a way that means it is accessible to all, but where this is not possible, we ensure there are suitable alternatives such as continued ability to speak to someone and access all of our services via our UK based contact centres.

## LEADING THE INDUSTRY IN DIGITAL ACCESSIBILITY

To ensure our digital services are accessible and inclusive, we work with an external digital compliance auditor, Sitemorse. Through weekly automated compliance checks, we are constantly alerted to potential accessibility issues across our digital services and Sitemorse work with us to rectify these issues promptly, providing us with expert advice on how best to ensure the service is accessible for all.

Every quarter, Sitemorse also create an independent index report on the state of accessibility across the industry and for four years running, we have ranked 1st for accessibility.

We will continue to work with Sitemorse, and our other digital partners, to ensure our services are designed with accessibility at the front of our minds.





# PUTTING DIGITAL INCLUSION AT THE HEART OF OUR STRATEGY

## EVOLVING DIGITAL SKILLS WITH OUR PEOPLE AND OUR CUSTOMERS

In 2022, we have partnered with Barclays Digital Eagles Programme to tackle the digital maturity gap both within our organisation and the communities we serve. In 2022 we will open up an internal digital learning platform to help our employees self-learn new digital skills, from the basics of using technology and the internet, to developing advanced digital skillsets like coding.

Furthermore, in 2023, we will launch an external initiative as part of our community outreach programme, which will focus on targeting high risk customer groups of digital exclusion. We will use our strong community relationships to offer support, training and tools to evolve the skillset of our customers if they'd like to.

Read more about how we will engage and support customers in vulnerable situations in our proposed RIIO-ED2 Vulnerability Strategy



## DIGITAL INCLUSION IN ACTION

### RECITEME

In 2019, we introduced ReciteMe to the SSEN website. Recite Me assistive technology provides our customers with all the functions they need to understand and engage with our services. Our unique web accessibility toolbar allows for adjustments to all elements of the page including text, graphics, language, and navigation. Accessibility features can be used individually or combined to make multiple adjustments for ultimate ease of use.



### DIGITAL CUSTOMER CONTACT – LANGUAGE INCLUSION

For some customers, digital is a preferred contact channel, however, if these are not made accessible, it can lead to full exclusion from any contact. An example of this is where English is not a persons first language, and therefore, they may not be comfortable speaking on the phone. Although we offer a phone translation service, many customers do not wish to use this. Instead, they find it easier using a digital service.

Along with full translation of our online services, we also offer the ability for customers to communicate with us in their own first language on our social media and messaging services. Using a combination of inbuilt translation tools, and our own partnerships with specialist translation services, we made it easy for customers to communicate with us in any language they wish.

# OUR DIGITAL ACTION PLAN

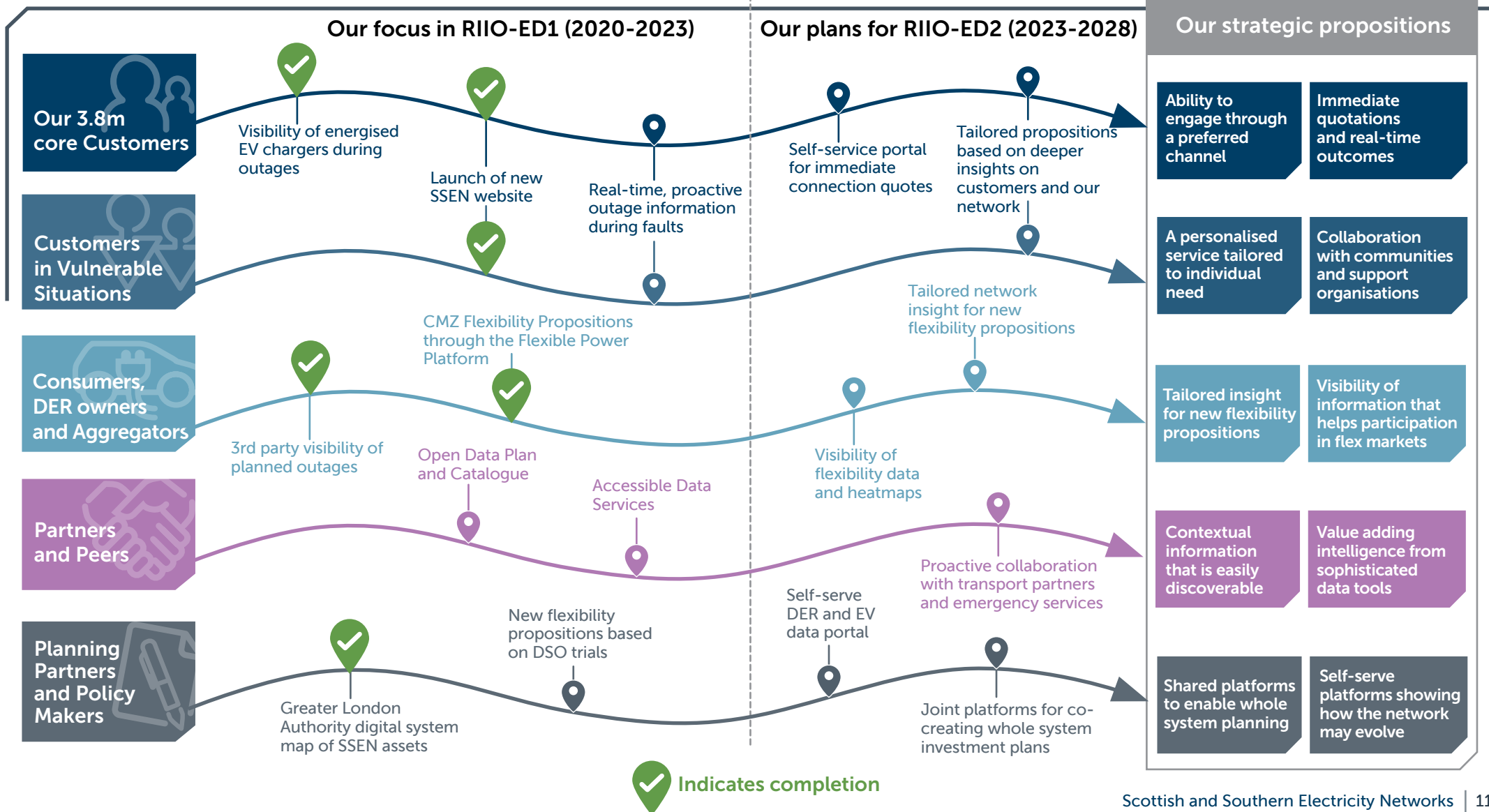




# HIGHLIGHTS FROM OUR DIGITAL ROADMAP

Combined, our Digital Strategy and RIIO-ED2 Business Plans provide the vision and strategic intent that helps us shape our Digital Roadmap. Our full product catalogue and roadmap can be found on our [SSEN Digital Website](#), and can be viewed in summary below, demonstrating the longer-term journey of continuous development for our customers and stakeholders.

We will iteratively develop a set of products and services that help deliver our strategic propositions for customers and stakeholders





# OUR EXISTING DIGITAL SERVICES

SSEN provides a range of digital products and services that serve the needs of our customers and stakeholders.

Our current products and services...

...provided for the following customers and stakeholders

	Its purpose	Where you can find it	How we measure success	Our 3.8m customers	Customers in Vulnerable Situations	DER owners and Aggregators	Partners and Peers	Planning Partners and Policy Makers
Facebook, Twitter and WhatsApp contact channels	To provide customers with their preferred digital channel	<a href="#">SSEN Social Media</a>	Social media remains our 2nd most used channel with a Customer Satisfaction score of 9.1. We are also 1st placed DNO for Online Services under industry wide Broad Measures	✓	✓	✓		
Who is my supplier? service	Customers can find their electricity supplier contact details via our website	<a href="#">Who is my supplier?</a>	45,540 user interactions from 1st Jan - 31st May 2021	✓	✓			
JustEat self service vouchers	Providing JustEat food vouchers to customers during outages	<a href="#">More info here</a>	Customer feedback and uptake	✓	✓			
Power Track app	Mobile and web app providing real-time outage information by location	<a href="#">Power Track</a>	Use to date is just under 15 million page views and over 109,000 electricity power outages reported by customers via this app	✓	✓	✓		
Street Manager APIs	Providing Department for Transport (DfT) API based access to SSEN streetworks data	<a href="#">DfT Login</a> – requires Gov. UK sign-in	Between June 2021 and June 2022, we sent 60,766 and received 25,810 transactions using this service				✓	✓
Line Search Before You Dig	Asset location information for 3rd parties via a user friendly platform	<a href="#">LSBUD</a>	Just under 500,000 requests for records received and 9030 new users in the last 12 months with an average 1.7 minute response time			✓	✓	✓
ICP GIS Platform	Dedicated website providing access for Independent Connection Providers to SSEN's GIS Electric Office system	<a href="#">Link</a> – ICP access only <a href="#">Click here to Register with us as an ICP</a>	49% increase in new users in the last 6 months and a total of 2867 users				✓	
Flexibility Propositions	SSEN provide a variety of propositions for Distributed Energy Resource (DER) providers	<a href="#">Flexibility Services calls</a> ( <a href="#">ssen.co.uk</a> )	To date we have contracted over 600MW of flexibility services, which represents over 8.5GWh of energy utilised on our network and 3,800 tonnes of avoided CO2 emissions.			✓		



# OUR EXISTING DIGITAL SERVICES CONTINUED...



Since June 2021, we have successfully delivered and added 5 new digital services, as well as a range of iterative enhancements to existing services.

SSEN provides a range of digital products and services that serve the needs of our customers and stakeholders.

Our current products and services...

...provided for the following customers and stakeholders

	Its purpose	Where you can find it	How we measure success	Our 3.8m customers	Customers in Vulnerable Situations	DER owners and Aggregators	Partners and Peers	Planning Partners and Policy Makers
	Interactive maps detailing current network generation capacity shared on our website	<a href="https://ssen.co.uk">Generation Availability (ssen.co.uk)</a>	Customer feedback and usage with over 37,041 user page views			✓	✓	✓
	Live update of our Orkney and Isle of Wight ANM systems	<a href="https://ssen.co.uk">ANM (ssen.co.uk)</a>	Ongoing updates to the system to reflect new DERs as they join the ANM system			✓		
<b>NEW</b>	Provide free, proactive SMS notifications giving real-time network updates based on your postcode. Any customer who has provided us with their mobile number is eligible to the service.	<a href="https://ssen.co.uk">Power Cuts (ssen.co.uk)</a>	Over 1.6 million messages sent since this service was launched in September 2021	✓	✓	✓		
<b>NEW</b>	Enhanced customer experience optimised for use on all devices	<a href="https://ssen.co.uk">ssen.co.uk</a>	349,380 pageviews since launch. %10 lower bounce rate when compared to the same date last year (March - May)	✓	✓	✓		
<b>NEW</b>	A simplified process for customers making online EV and Heat Pump connection applications	<a href="https://ssen.custhelp.com">ssen.custhelp.com</a>	5715 applications through the portal	✓	✓	✓	✓	✓
<b>NEW</b>	Provide 3rd parties with visibility of planned outages via a digital platform	<a href="https://ssen.co.uk">Planned Outage (ssen.co.uk)</a>	Third party feedback and use of this service	✓		✓	✓	
<b>NEW</b>	A Mapping Tool showing vulnerability indicators using publicly available datasets	Not available publicly - contact us for more information <a href="mailto:stakeholder_engagement@sse.com">stakeholder_engagement@sse.com</a>	Number of users with access and numbers of customers helped as a result of using the tool		✓		✓	✓



# MEASURING THE SUCCESS OF OUR DIGITAL STRATEGY AND ACTION PLAN

Our Digital Strategy outlines success measures that have been evaluated by our stakeholders. Here we provide a progress update against each of those measures as of June 2022.

★★★★ Complete   ★★★★★ Ahead of Target   ★★★☆☆ On Target   ★☆☆☆☆ Below Target

Success Measure	Target Outcome	Progress Update June 2022	DSAP location	Overall Status Against Plan
1. <b>Demonstrate a genuine understanding</b> of our customers and stakeholders needs	Develop and validate customer and stakeholders needs through engagement and feedback	As part of RIIO-ED2: 3 dedicated digital events, a further 5 with specific Digitalisation questions and an additional 39 events referenced for our digital investment plan. Positive progress in development of customer journey maps and personas to gain deeper understanding of customer and stakeholder needs.	Digital Strategy, pages 7-8	★★★★
2. <b>Existing products and services are valued</b> by those that use them	Success measures and feedback demonstrate value and customer satisfaction	Measures demonstrate positive usage and uptake of products and services	Interactive Digital Roadmap on our SSEN Digital website (also available in PDF download)	★★★
3. <b>Deliver our action plan</b> of products and services for our customers and stakeholders	Deliver planned products and services in Financial Year (FY) 2021/22	10 actions complete 4 actions ahead of or on target 3 new actions added June 2022	Interactive Digital Roadmap on our SSEN Digital website (also available in PDF download)	★★★
4. <b>Demonstrate a bold, and leading ambition</b> within our strategy and for our products and services	Benchmarking and customer and stakeholder feedback confirms our ambition as "bold and leading"	Feedback from our Digital Strategy workshops indicate we are on the right track and identified areas for further improvement	Digital Strategy page 28	★★★
5. <b>Realise the longer term value of digitalisation</b> for us and wider ecosystem	Share analysis of benefits through delivering our Digital Strategy Action Plan and our RIIO-ED2 Business Plan	Benefits of products and services for each customer segment are described within our Digital Strategy and Action Plan, and quantified within our RIIO-ED2 business plan.	Digital Strategy pages 21 – 26, and 28	★★★
6. <b>Collaborate within and outside of the energy sector</b> to realise efficiencies, foster innovation and accelerate delivery of our digital strategy, sector and national ambitions for digitalisation and net zero.	Work with others to deliver shared products and services, ensuring interoperability where applicable and benefit to the wider ecosystem.	8 collaboration projects continuing through Financial Year 2021-22 5 projects completed or closed	Interactive Digital Roadmap on our SSEN Digital website (also available in PDF download)	★★★



# DIGITAL ENABLERS

To provide products and services to our customers and stakeholders we need a range of digital capabilities. These investments provide our business with the digital platforms, insights, automation and organisational ways of working needed to ensure we can deliver our commitments and digital vision.

What have we done so far

## PLATFORMS

IT and Operational Technology (OT) is an enabler for data to be extracted, analysed and made 'Open' whilst also ensuring resilience, reliability and security of our network as usage evolves.



We have completed delivery of centralised ANM architecture running state-of-the-art virtual server platforms to significantly expand the number of operational ANM schemes available, enhancing management of network constraints and enabling more flexible connections.

We continue to deliver a number of cyber security enhancements in line with the NIS Directive and have revisited threat and risk assessments following world events.

We have successfully enhanced our Condition Based Risk Management (CBRM) system with Asset Investment Management functionality, being the first Distribution Network Operator to adopt this change.

Asset Lifecycle Mgmt

Geospatial Asset platform

Mobile Work platform

Customer Risk Management Tool

Cyber Security

## INSIGHT AND AUTOMATION

We are building the core data and integration infrastructure in preparation for sharing data and extracting new value through analytics. We are committed to process automation and improvement.



Established our data and analytics, data governance, data management and data stewardship capabilities whilst adopting IBM Data Model for Energy and Utilities (DMEU), Axon Data Governance Tool and Microsoft PowerBI solutions.

We have integrated and are utilising smart meter data to enhance our understanding of network connectivity and improve fault management, established data pipelines to enable data proof of concepts and commenced the automation of core processes, including KPI reporting, worked time recording and fatigue management.

We have developed and continue to evolve analysis Electric Vehicle and Low Carbon Technology uptake, informing our RII0-ED2 business plan and stakeholders to ensure our network can support the UK transition to net zero.

We have assigned business data domain owners armed with the ability, knowledge and tools to respond appropriately to Open Data requests received through the new industry data triage process.

Smart Meter Data Insights

Reporting and Visualisation

Data Governance Tool

Utilities Data Mode

Common Information Model

## ORGANISATIONAL ALIGNMENT

We are making strategic investment in our organisation to evolve our ways of working to be more responsive to our customers and more agile in the way we work.



Expanded our Digital Transformation team, recruiting key expertise, digital apprentices and training in business change, process, lean six sigma, real time systems, data and analytics.

We have appointed a Chief Information Officer (CIO) to join our Senior Leadership team and Distribution's Executive Committee, who will lead the convergence of IT, OT and DnA capabilities and delivery.

Strengthened our mature digital governance and delivery framework with increased business ownership and accountability (MD steering groups, Director level Sponsorship, Business Product Owners and Data Owners)

Enhanced employee use of technology and accelerated adoption of digital tools, supporting capability growth.

Revised our operating model, optimising with use of technology.

Established a workforce resilience working group and culture mapping to inform future transition plans.

Introduced Customer Impact Assessments throughout design and delivery stages of Digital projects to ensure customer needs kept at the forefront.

Developed Customer Journey maps and Customer personas to inform and optimise service experience.

Digital Transformation Team

Digital and Data Governance

Accelerated Digital Adoption

Revised Operating Model



# DIGITAL ENABLERS

To provide products and services to our customers and stakeholders we need a range of digital capabilities. These investments provide our business with the digital platforms, insights, automation and organisational ways of working needed to ensure we can deliver our commitments and digital vision.

What will we do in the next 12 months

Our plans for RIIO-ED2 period (2023-2028)

## PLATFORMS



IT and Operational Technology (OT) is an enabler for data to be extracted, analysed and made 'Open' whilst also ensuring resilience, reliability and security of our network as usage evolves.

An upgrade to our Distribution Management System to include Outage Management, and an upgrade to our Customer Platform to improve customer connections. We are continuing our programme of cyber security enhancements, extending use of our mobile field technology and increasing our use of Active Network Management, undertaking key improvements to our Operational Technology Network (OTN) to facilitate this.

Recognising it's importance to our [Green Recovery Programme](#), we are accelerating our wide-scale roll-out of Low Voltage (LV) network monitoring in the RIIO-ED1 Period. In the last six months, we have commenced the installation of LV monitors as part of the Green Recovery programme and established the data flows through our OT domains to our IT data lake. We have installed over 200 monitors to date and will continue our rollout programme into ED2."

Distribution Management System	Outage Management System	Customer Connections platform	Active Network Management
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Two platforms to enable our DSO role: Whole System Co-Ordinator and Neutral Market Facilitator.

Extensive rollout of LV network monitoring and fully establishing our DSO and flexibility management platforms.

Provide an open data "shop-front" to make it easy for third parties to access our data and services.

Establish our developer portal enabled through adoption of a Service Oriented Architecture.

## INSIGHT AND AUTOMATION



We are building the core data and integration infrastructure in preparation for sharing data and extracting new value through analytics. We are committed to process automation and improvement.

Expand our data pipelines, growing our data lake and data model. Progress completion of our electrical asset connectivity model, providing the basis for our Digital Twin and system map.

Rollout and embed analytics solutions to deliver improved, automated processes and decision making.

Provide open data through our website and application programming interfaces (APIs).

Complete our Energy Data and Forecasting Analytics programme to support our DSO role.

Electrical Connectivity Model	Digital Twin	Automated Core Processes	Energy Analytics and Forecasting
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Complete our customer connectivity model, building a full digital twin of our network in a Common Network Model.

Our master data and process management are delivered through our Axon toolset.

Achieve extended use of automation and a suite of integrated analytical models.

## ORGANISATIONAL ALIGNMENT



We are making strategic investment in our organisation to evolve our ways of working to be more responsive to our customers and more agile in the way we work.

Continue to develop our workforce resilience strategy, operating model and culture change for RIIO-ED2.

Expand and embed data and digital skillsets across the organisation.

Continue to recruit more digital apprentices.

Offer internal digital learning courses and training platform to all employees.

Align in-house processes and system functionality to our defined customer journey maps.

A specific emphasis will be placed on proactive services for Customers in Vulnerable Situations.

Extend and enhance our use of Lean Six Sigma and Agile methodologies across the organisation.

Following a successful pilot, roll-out our 'Empowered to Care' training programme that once completed and if successful, will see SSEN become the first DNO to achieve the TrainingMark Accreditation for a Customer Service Training Programme.

Workforce Planning and Culture Change	Customer Journeys and Personas	Vulnerable Customer Services	Digital, Data and Change Skills
---------------------------------------	--------------------------------	------------------------------	---------------------------------

Adopt and integrate use of emerging technology for operations and training.

Modernise our working arrangements and digital workplaces.

Achieve a customer-centric culture and organisation around customer journeys.

Optimise work planning and scheduling with digital solutions.

For more information, please [Get in touch](#) >





# ENSURING WE DELIVER FOR OUR CUSTOMERS AND STAKEHOLDERS

We are taking a range of steps to ensure we deliver our strategy and action plan to a high quality. Here we outline our approach and the risks we are actively managing.

## OUR DELIVERY APPROACH



Our digital strategy outlines how we will use [personas](#) to surface insights and create deeper understanding of our customers' needs.

This insight will be used as we design our products and services.



We will engage the consumers of our services in the design process and integrate their feedback to improve our products.

Our commitment to adopt a 'test and learn' approach supports our ambitions stated for agile delivery and organisational alignment in our digital strategy.



Where it makes sense we will pilot new services and product updates with small audiences and gather feedback.

We will use this to make improvements before releasing to a larger audience.



We will continue to evolve our agile capability to deliver iterative benefit to customers and stakeholders.

We will continue to use our External Customer Focus Groups to shape and inform our actions.



We have an initial set of DSAP performance measures that we will continue to review and evolve through our consultation with customers and stakeholders. For more information on stakeholder feedback, please refer to our [RIIO-ED2 Business Plan Annex 3.1: Enhanced Engagement Strategy](#).

## THE RISKS WE ARE ADDRESSING

**1** SSEN's products and services are not aligned to or benefiting from similar work taking place elsewhere in industry or beyond. This risks introducing complexity and inconsistency to our customers and stakeholders, and increasing the incremental and long term cost to deliver our Digital Strategy and realise our own and the UK's strategic digitalisation ambitions.

- We will align with industry through the ENA Data Working Group, our broader collaboration with other stakeholders, and by seeking feedback on areas we should collaborate on further.
- Publish an appendix listing the data standards, underlying technologies and processes to enable effective feedback to shape our forward plans and those of others.

**2** The incremental costs of providing and developing products and services proves to outweigh the benefits.

- We are taking a holistic approach to determine the benefits of developing products and services, recognising there are direct benefits to the users but also broader societal benefits such as carbon reduction, enablement of new markets and supporting broader policy aims of digitalisation across the UK.
- As part of our future Digital Strategy and Action Plan updates we will provide a supporting benefits analysis for all future products and services.

**3** There is limited uptake of products and services despite them being clearly aligned to customers' needs

- Whilst SSEN sees real value in delivering new products and services, we will ensure the perceived need and real opportunity for any product and service has been thoroughly tested and evidenced before committing resources to the development of any product or service.
- We will do this through a mixture of stakeholder engagement, but also market sizing to determine the product of the number of potential uses, the instances where a product may be used and the frequency of use.

# RIIO-ED2 UPDATE



# DEVELOPMENT OF RIIO-ED2 DIGITAL INVESTMENTS

Through identification of our key digital capabilities and extensive stakeholder engagement we are proposing the following areas of investment for RIIO-ED2



Digital Strategy Category Key:

 <p>CUSTOMER AND ECOSYSTEM</p>	 <p>INSIGHTS AND AUTOMATION</p>
 <p>PLATFORMS</p>	 <p>ORGANISATIONAL ALIGNMENT</p>



# RIIO-ED2 DIGITAL INVESTMENT AND WHO THEY IMPACT

Our proposed investment for RIIO-ED (2023 – 2028) and who will benefit

**1 Primary**

Stakeholders that drive the initial objectives of the investment

**2 Secondary**

Stakeholders who also benefit from the investment

Supports Stakeholders from:

Investment	Digital Strategy Category	Strategic Alignment	Description	Our 3.8m customers	Energy Users, DER Owners and Aggregators	Partners and Peers	EV and Low Carbon Technology supply chain	Partners and Policy Makers
ADMS+	Platform	Progress to Net Zero	The largest predicted growth of LCTs in RIIO-ED2 is on the LV network, without having the capability of managing these resources significant LV network upgrades will need to be undertaken	2	1	2	2	2
CAPITAL INVESTMENT	Insights and Automation	Positive Impact on Society	Tools to enhance collaboration across our supply chain and all procured services, including design and construction, with portfolio, programme and project management, and a common data environment.			1		
CONNECTIONS+	Customers and Ecosystem	Trusted and Valued Service	An automated solution to enable the scale of connections required to facilitate net zero. A non-automated solution would require a substantial increase in personnel		1	2	2	2
CONNECTIVITY++	Insights and Automation	Progress to Net Zero	Creating a foundational connectivity model that links customers to all levels of our network is the only way to make more informed and proactive decisions about the distribution system.	2	1	2	2	2
COMMERCIAL OPTIMISATION	Platform	Progress to Net Zero	To ensure that the appropriate costs and value of our network solutions are effectively considered, we need to use the appropriate financial modelling to optimise our costs profiles			1		
CUSTOMER OMNI-CHANNEL SYSTEM	Customers and Ecosystem	Trusted and Valued Service	When customers want to interact with us it is important that we make it as easy as possible, using a digital omnichannel gives greatest flexibility and scalability. The project will replace the PSTN telephony at our call centres, adding enhanced omnichannel facilities, including automation.	1				2
DIGITAL COMMS	Platform	Safe, Resilient and Responsive Network	National communications networks are changing and are outside of our control, proactively addressing these issues enables better value solutions to be established		2		1	
DIGITAL WORKPLACE	Platform	Positive Impact on Society	Better facilitation of on-site works using digital technology to ensure effective and timely coordination and optimum service to customers and stakeholders	1				
DSO ANM	Organisational Alignment	Progress to Net Zero	Active Network Management (ANM) is a fundamental tool which enables flexible connections and provides the network with the ability to manage constraints through either flexible connections or contracted Flexible Services.	2	1	2	2	2
DSO ENABLEMENT (ORCHESTRATOR)	Platform	Progress to Net Zero	An effective market place is the absolutely necessary to enable a liquid market for flexibility		1	2		
DSO MANAGEMENT (OPTIMISER)	Platform	Progress to Net Zero	Being able to coordinate and use flexibility in the most effective way will bring the most benefits from flexibility and keep flexibility contract costs to a minimum		1	2		
ENVIROTRACK	Platform	Progress to Net Zero	Without understanding our progress against our sustainability goals, we will not be able to demonstrate are a leading organisation to meeting net zero		2			1
FLEXIBILITY CONTRACTING	Platform	Progress to Net Zero	Effective contact management and payment is a core part of any market, without an effective solution the market will not run smoothly and will not scale up to meet needs			2	2	2



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Stakeholders who also benefit from the investment

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				Our 3.8m customers	Energy Users, DER Owners and Aggregators	Partners and Peers	EV and Low Carbon Technology supply chain	Partners and Policy Makers
INVESTMENT OPTIMISATION	Insights and Automation	Safe, Resilient and Responsive Network	Using advanced modelling and AI to choose the most appropriate investment solutions, to both enable flexibility (an Ofgem obligation) and point to the most cost-effective solutions		1	2	2	2
LCT ANALYTICS	Insights and Automation	Progress to Net Zero	Understanding the growth and locality uptake of Low Carbon Technologies (LCTs), along with understanding emerging behaviours for effective planning and operational decision making	2	2	2	1	2
LINEAR ASSETS	Platform	Safe, Resilient and Responsive Network	By getting a detailed and insightful view of our most expensive and complex assets we can proactively mitigate issues and save significant costs	2	1		2	2
MDM, DATA LAKE & ANALYTICS'	Platform	Safe, Resilient and Responsive Network	A master data management system and data lake, managing data as a prime asset, based on international best practice, to support digital and IT capability and the wider business. Using analytical insight, including AI, to provide accurate information and improve decision making.		2	2	2	1
MARKET HALF-HOURLY SETTLEMENT (MHHS)	Platform	Progress to Net Zero	Updates and replacements of all systems that manage or process industry dataflows, to meet our obligations for Market-wide Half Hourly Settlements.	1				2
OPEN DOOR	Platform	Trusted and Valued Service	Open data is mandated by Ofgem and an ambition of SSEN to share our network data with our industry partners and beyond, achieving an effective Open Data operating model that drives value within and beyond our business.	1	2	2	2	
OTN ROLL OUT	Platform	Safe, Resilient and Responsive Network	Core communications backbone for our Primary and Grid Substations to enable resilient, high speed and high-capacity data backhaul and control.	2	2			
OUTAGE NOTIFICATIONS	Customers and Ecosystem	Trusted and Valued Service	A system to ensure that customers are automatically informed of any planned or unplanned outage, and to allow LCT providers to inform us of any outages, planned or unplanned, on their equipment.	2	1	2		
PERSONNEL VOICE COMMUNICATIONS	Platform	Safe, Resilient and Responsive Network	Replacement of substation voice communication equipment capable of supporting our needs in a black start scenario. Replacement of services presently provided by Public Switched Telephony Network.	2	1	2		
PSA+	Platform	Progress to Net Zero	Improving our networks system model to inform decisions and ensure up to date information, without which the accuracy and value of our decisions will be compromised introducing risk to the system					1
SUBSTATION SCADA	Platform	Safe, Resilient and Responsive Network	An overhaul and extension of our SCADA systems with modern technology to enhance monitoring and support the more complex interactions expected in our journey to net zero.	2	2			
TAILORED INSIGHTS	Customers and Ecosystem	Trusted and Valued Service	Personalised experience for customers through the use of analytics as tool for them directly but also for our internal staff interacting with stakeholders. This also helps to democratise data	2	2	2	2	1
WORK MANAGEMENT 2	Organisational Alignment	Positive Impact on Society	All work, including maintenance, outages and connections, managed through a single platform, reducing waste and travel, and delivering granularity of costs for future planning.			2		

# OVER TO YOU



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STRATA  
PROTECTION BY DESIGN

Get extra support  
during power cuts.  
Register for  
Priority Services.



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# OVER TO YOU

We use stakeholder feedback to improve our business and your views will make a real difference to our digital future, so please let us have your opinions.

Through our RIIO-ED2 stakeholder engagement, digitalisation is a core theme that cuts across all our activities and impacts the wide range of customer and consumer groups we highlighted in this document. Therefore, digitalisation will be a consideration in all of our RIIO-ED2 engagements. If you would like to know more and are not already registered as an SSEN stakeholder, please register here:

[www.ssen.co.uk/  
StakeholderEngagement/  
HaveYourSay](http://www.ssen.co.uk/StakeholderEngagement/HaveYourSay)

We have a detailed technical questionnaire on how we are delivering digitalisation, please contribute here:

[www.ssen.co.uk/dsap](http://www.ssen.co.uk/dsap)

We are also carrying out small groups of expert stakeholder engagement on the delivery of Digitalisation, if you are keen to feedback in one of these sessions please get in touch here:

[futurenetworks@sse.com](mailto:futurenetworks@sse.com)

- 1 To what extent do you agree with the content of our strategy and action plan? Please let us know where you think SSEN could improve.
- 2 To what extent has this document increased your understanding of the opportunities enabled by digital for SSEN? Please let us know where clarity can be improved.
- 3 To what extent has this document increased your understanding of the potential of Open Data to enhance value to the customers and the communities that SSEN serves?
- 4 How bold do you think SSEN's digital strategy is? Please let us know which areas of the strategy could be bolder.
- 5 Is our action plan sufficiently ambitious? Which areas require a stronger focus?
- 6 To what extent do you feel that SSEN is making progress in meeting the current and future needs of our customers in a digital world?
- 7 In the process of digitalising the business and opening up data securely, where should our priorities be focused? For example EV connections, whole system planning, customer supply interruptions.

## DIGITAL FEEDBACK SURVEY

If you would like to give general feedback or fill out our questionnaire, please go to:

[www.ssen.co.uk/DigitalFeedback/](http://www.ssen.co.uk/DigitalFeedback/)





# GLOSSARY

Term	Definition
Aggregators	A new type of energy service provider which can increase or moderate the electricity consumption of a group of consumers according to total electricity demand on the grid.
Agile	Methodology and way of working based on iterative development, where requirements and solutions evolve through collaboration between self-organising cross-functional teams.
API	Application programming interface: a computing interface that defines code and interactions between different software platforms.
Artificial Intelligence (AI)	Development of computer systems able to perform tasks normally requiring human intelligence, such as visual perception, speech recognition, decision making and translation between languages.
CEG	Customer Engagement Group
Channel	A digital medium (website, mobile, Chatbot) by which to consume content, engage with a brand and / or complete a transaction.
CMZ	Constraint Managed Zones . These zones make use of technologies providing flexibility to alleviate network constraints, deploying them as an alternative to traditional network reinforcement in the management of peak demand.
Consumer	Energy consumers, meaning wider users of network services including business and domestic customers that pay for their network use through energy bills.
Customer	An individual, business, generator or flexibility service provider that is connected to, or seeks to connect to SSEN's electricity distribution network.
Decarbonisation	Reducing the carbon intensity in terms of emissions per unit of electricity generated.
Data Communications Company 'DDC	A new smart meter communications infrastructure that will link energy suppliers to smart meters via a secure wireless network.
Data triage	Systematically find issues which should inhibit open data, identify the 'least impact' mitigation technique(s) and make the process transparent
Digital	Describes the dominant use of the latest digital technologies to improve organisational processes, improve interactions between people, organisations and things, or make new business models possible.
Digitalisation	The use of digital technologies to change a business model and provide new revenue and value-producing opportunities; it is the process of moving to a digital business.
Digital System Map/ Digital Twin	A digital representation of a real world entity or system.

Term	Definition
Distributed Energy Resources (DER)	Any resource on the distribution system that produces or stores electricity. This can include distributed generation, storage, heat pumps and electric vehicles as well as other technologies.
Distribution Network Operator (DNO)	The distribution system is a network of wires, transporting electricity from the transmission system or distribution connected generation to domestic, commercial and industrial electricity consumers.
Distribution System Operator (DSO)	Securely operates and develops an active distribution system comprising networks, demand, generation and other flexible distributed energy resources (DER).
DSAP	Digital Strategy and Action Plan
Ecosystem	Connection of people, processes, companies, data and things that share the use of digital platforms. Participants in an ecosystem interact with each other to create and exchange sustainable value.
RIIO-ED1 and RIIO-ED2	Refers to Ofgem's RIIO-ED1 and RIIO-ED2, which is Ofgem's electricity distribution price control model for network regulation (Revenue = Incentives + Innovation + Outputs)
Electricity System Operator (ESO)	Supply and demand are balanced second by second and in the longer term and that power flows across the network safely and reliably.
ENA DWG	Energy Networks Association Data Working Group
EV	Electric Vehicles
Flexr	Flexr is a DNO data provision and standardisation service from ElectraLink that will connect to the data held by all six DNOs and their DER customers.
Fuel Poor	A fuel poor household is defined as one that needs to spend 10% or more of their household income on all fuel use in order to maintain a satisfactory heating regime.
GIS	Geographic Information System: computer based visualisation of spatial and geographic data.
Independent Connection Providers (ICPs)	An independent connections provider not affiliated to a distribution network operator.
Independent Distribution Network Operators (IDNO)	Independent Distribution Network Operators (IDNOs) develop, operate and maintain local electricity distribution networks.
Internet of Things (IoT)	IoT refers to a vast network of devices connected to the Internet with the promise to enhance real-time customer experience and unlock new value from data.
Lean Six Sigma	Continuous improvement methodology and tools for business problem solving and process improvement.





# GLOSSARY

Term	Definition
Long Term Development Statement	A document that sets out the use and likely development of the distribution network and the distribution network operator's plans for modifying the distribution system.
Low Carbon Technologies (LCT)	Processes or technologies that produce power with substantially lower amounts of carbon dioxide emissions than is emitted from conventional fossil fuel power generation.
Low Voltage (LV)	This refers to voltages up to, but not including, 1kV.
Machine Learning	Machine learning is an area of artificial intelligence concerned with developing techniques that allow machines to learn.
MEDA	Modernising Energy Data Access: UK Government competition to enable energy data to be open-sourced for the benefit of society.
Metadata	Data that describes other data. It helps to organise, find and understand data.
Network Asset Risk Metric (NARM)	NARM is defined by Ofgem as the relative reduction of long-term monetised network asset risk. It will be used to justify the funding for, and to set the outputs of, asset management work.
Net zero emissions	Any emissions would be balanced by schemes to offset an equivalent amount of greenhouse gases from the atmosphere, such as planting trees or using technology like carbon capture and storage.
Neutral Market Facilitator (NMF)	The Neutral Market Facilitator (NMF) will provide a market for trading the use of Distributed Energy Resources (DERs)
Open Data	Data in a machine readable format that can be freely used, shared and built on by anyone, anywhere, for any purpose.
Platform	Series of cloud based technologies that offer pre configured solutions to common business processes together with a flexible way to extend and build new processes to support your own requirements.
Priority Services Register (PSR)	A register of all customers in an electricity distribution area that are of pensionable age, have a disability, are chronically sick, require special communication needs, depend on electricity for medical reasons, have children under five in the household or require certain information and advice about supply interruptions.
PSA+	Power System Analysis
PSTN	Public Switched Telephone Network
Service Oriented Architecture (SOA)	Service-Oriented Architecture (SOA) is a style of software design where services are provided to the other components by application components, through a communication protocol over a network.
SCADA	Supervisory Control and Data Acquisition
SSEN	Scottish and Southern Electricity Networks
Transmission Owner (TO)	Companies which hold transmission owner licenses.
Vulnerable Consumer	Significantly less able than a typical consumer to protect or represent their own interests; and/or significantly more likely to experience detriment, or for that detriment to be more substantial.



# ENGAGE WITH US

For any queries or to request further information, please contact us on:



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