



# Archived Digitalisation Plan 2021 – 31/05/2023

31st May 2023

**Electricity  
Distribution**

**nationalgrid**

# Table of Contents

- Document Summary 2
- Our Digitalisation Action Plan 3
- 1. Introduction 3
- 2. Looking Back 4
- 3. Interactive Time Line 5
- 4. Programme Delivery & Governance 6
- 5. Measuring Success 8

# Document Summary

This document is an archived 'snap-shot' of NGED's Digitalisation Action Plan which was published on our website [National Grid - Our Digitalisation Action Plan](#) between 2021 – May 2023 and updated in December 2022.

# Our Digitalisation Action Plan

Digitalisation of the energy system is at the heart of our transition to deliver a smart and flexible energy system supporting the UK's clear commitment to net zero carbon emissions by 2050.

This is leading to unprecedented changes in the way customers use and generate energy. We operate the network for our customers, so it is essential we respond to their changing use of the network and adapt our operations to continue to deliver excellent customer service, reliability, and value for money. We have set out our long term ambitions as part of our digitalisation strategy; describing how we plan to continue our digitalisation journey and deliver new and improved solutions and data access internally and externally for our customers and stakeholders.

## 1. Introduction

This Action Plan focusses on our planned activity throughout RIIO-ED1 to deliver our digitalisation strategy and measuring progress against our long-term roadmap to enable us to continue our ambitious activity in to RIIO-ED2 and beyond. We will also look back on our achievements to date on our digitalisation journey.

How we approach digitalisation delivery, ensuring it meets ours and our stakeholders needs, how we will regularly communicate our activity and ensure we continue regular and relevant engagement is core to our digitalisation strategy and is demonstrated throughout this Action Plan. We will provide a detailed update of the Action Plan at least every six months; we also know that many people want and expect more frequent updates as to the progress against our delivery plan and specific projects, therefore, we've made this available and interactive online.

Now you can view our delivery plan online here, see the progress against key milestones, get updates from the team through blogs and videos, feedback on progress and input through formal consultations but more frequently through quick and engaging surveys as well as links to direct output from each and all activity we are excited about delivering this action plan more collaboratively than ever before.

Our action plan continues to focus on implementing revolutionary change to deliver for our key four drivers, customers, our employees, infrastructure and ensuring our system is smart and flexible. The high level outputs within our roadmap demonstrate this revolutionary and step change approach to delivering our digitalisation strategy; setting the foundations for tangible and valuable outcomes for all our current and future data and system users.

Our ambitious action plan outcomes will mean that we not only deliver but exceed the need and expectations of our stakeholders, ensuring we play our part in delivering the energy revolution!

Our Action Plan does and will continue to contain the current projects identified and being delivered as part of our digitalisation programme. This provides an overview for customers and stakeholders to understand the developments in progress and the outputs that they can expect and when. The longer-term view can be seen in the Roadmap as part of our Digitalisation Strategy.

For each project a description of the activity is given, providing an overview of what the project will do. The drivers behind the project will be summarised, detailing the rationale and reason being the project and the benefits will also be described.

We are committed to delivering a balanced digitalisation programme and are using a number of key metrics to support and measure this.

Using the three underpinning elements of our Digitalisation Strategy, each activity within the Action Plan is characterised against at least one of these:

- Improved data management;
- Increased network insight and operation;
- Delivering for stakeholders.

To further ensure we have a balanced programme we also capture which of the five key recommendations from the Energy Data Taskforce report a project aligns and supports our progress in delivering against.

We also identify, where applicable, what internal and external user types the activity is most likely to benefit.

These metrics will provide useful insight to inform our continuing digitalisation programme and ensure it remains balanced, however, we understand that a greater focus in some areas will be required throughout the delivery of our digitalisation roadmap.

Importantly each project has one of our team assigned so if you'd like to know anything more about the projects or feel you'd be the right person or organisation to support they'd love to hear from you.

## 2. Looking Back

Looking back NGED have delivered a number of digital projects and solutions that are accelerating and driving our business through our Digitalisation Strategy; these include:

### Customers

- Connected Data Portal - A data catalogue providing visibility of substation assets, network capacity, flexibility, Long Term Development Statement (LTDS) and more
- ConnectLite / Click2Connect - Enabling Customers to process their own self-serve low voltage budgetary quotations
- Network Capacity Map (Bulk/Primary Substations)
- Data Request Service Desk
- Cloud Pack for Data - Providing Data Science Insights and APIs to our Data e.g. Power cut Map, demand for major events like the football world cup
- Data Triage Playbook - Providing a process whereby data sets can be triaged prior to publication both internal and external consumption
- Application Program Interfaces (API) - Providing stakeholders with data interfaces to link into their business systems or projects; Rota Load Disconnection API

### Employees

- Data Dashboards - Providing internal and external insights into our data using modern Data Science Visualisation tools
- Internal Work Request System - Using industry standard tools for managing internal work requests
- Internal Data Catalogue - Phase 1
- Data Historian - Providing historic data visualisation of our electricity network e.g. demand, generation
- Digitised Processes - Risk Assessments, PPE Checks, Timesheets, Asset Management, and more
- Integrated Network Model - Improving Data Quality between systems and output of CIM formatted data
- Connect LV (Phase1) - Modern LV design tool replacing legacy tools
- Data Science Community Platform

## Infrastructure

- Data Warehouse
- Data Pipeline Creation Tools
- Industry Leading Data Visualisation Tools - Delivering data dashboard functionality to the business
- Integrated Network Model - Identifying and outputting Data Improvements within data sources

## Smart & Flexible

- Envision (Phase 1) - Enabling DNO & DSO teams to perform load flow surveys

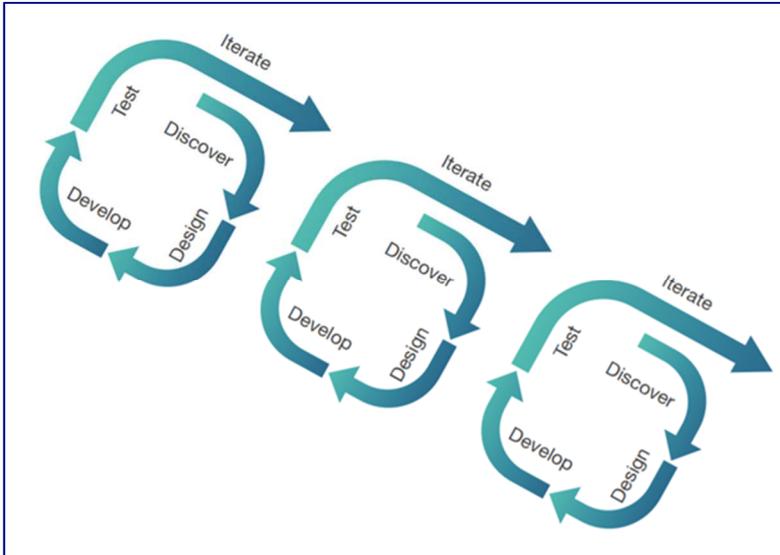
## 3. Interactive Time Line

See published document 2021-2023 Archived Digitalisation Action Plan Timeline.

## 4. Programme Delivery & Governance

### 4.1. Methodology

Digitalisation is and will continue to involve and impact our complete business, our interactions with customers and stakeholders and the services we offer them and them us. The developments we are employing are revolutionary and wide ranging and we need to continually drive value and improvements.



It is critical that we take an active and agile approach to delivery, development and improvement. We want to deliver value as quickly and effectively as possible, providing output and benefit as soon as it is available, take feedback from the users' experience, iterate, develop and improve. We recognise that this is very different from the way in which we manage engineering projects, which make use of a waterfall approach to manage risk effectively and appropriately. It will take time to fully adapt our governance and the mind-sets of our people, which we see as a continual journey rather than a binary transition from waterfall to agile.

Our agile approach will be flexible, as we recognise that there will be a significant variety of programme and project sizes and timelines. There may be programmes or projects for which traditional waterfall methods are more appropriate, or hybrid approaches with waterfall used for discovery and high-level design, followed by short agile delivery sprints. All our projects and programmes will be subject to common transformation governance, ensuring each is delivering outcomes for our customers and stakeholders.

### 4.2. Governance

Effective project governance is critical to all projects, ensuring that the accountabilities and responsibilities are understood, providing a decision-making framework that is clear, appropriate and repeatable to enable a well-structured and delivered digitalisation programme.

We have a well-established business change governance process, developed as part of our long running innovation programme and we are utilising this to support our digitalisation project governance, with refinements to accommodate an agile way of working and to streamline longer approval cycles.

## Structure

Our governance structure is driven by our Digitalisation and Data Governance Group approving the Digitalisation Strategy and Action Plan. For each of our projects there will be a Guiding Coalition, made up of relevant people from within the business, where their current processes will be changed as part of implementing the project's solution, or are key to enabling the development and implementation. Where a project is driving direct external value and benefit, the Guiding Coalition will also have appropriate representation from a user representative; this could be a community energy group, another utility provider, or an energy aggregator as examples.

A Guiding Coalition will be typically made up of the Project Sponsor, the likely owner of solution on implementation, Senior Users to inform the approach and output, and Suppliers, providing key inputs to support the development. The Project Sponsor, although part of the

Steering Group, will also have their own explicit role to ensure that the vision and the benefits of the project are delivered. Importantly, each development will have a specific Project Manager to ensure that the planning, design and delivery of each project is provided to time, cost and quality. Overarching this is the programme management, governing the projects as part of the Action Plan and the wider roadmap activity, ensuring decisions at each level can be appropriately made through agreed tolerances and exception reporting.



## Project Setup

Each new digitalisation project has to follow a defined registration process in order to get approval to proceed to the delivery stage of the project. The project approval focuses on producing a Project Initiation Document (PID), outlining the project scope, the business case, aims and benefits and the key outputs and milestones. It also includes a high-level project delivery outline, a list of project resource requirements, finance detail, key risks, assumptions and dependencies. The PID is developed by the Project or Programme Manager, reviewed and supported by the Project Sponsor and approved by the Steering Group or Governance Group dependant on project value. This provides a clear capture to measure delivery performance and success at the end of the project effectively.

## Project Delivery

The Project Manager takes responsibility for the day-to-day delivery of the project using a flexible set of tools to manage deliverables, risks, issues, assumptions and dependencies effectively. Reporting is described in the Digitalisation Delivery Governance Hierarchy, ensuring that the right level of oversight and visibility of the project and its progress against the PID deliverables. Appropriate tolerances for time, cost and quality are set for each reporting level, enabling effective delivery to be achieved whilst ensuring appropriate bounds are set to ensure the original aims of the project are delivered.

## 5. Measuring Success

We know that it's really important that our Digitalisation Strategy and Action Plan progress is effectively tracked and measured to ensuring we are delivering benefits for all. We have developed a number of areas where we will measure success where internal and external engagement and feedback on progress to data to shape our future roadmaps and delivery will be vital. So, as we everything we do we'd love you to get in touch about any of the projects, potential projects or any data or digitalisation initiatives.

### Understanding our employees' and customers' digital needs

Demonstrating valuable and beneficial engagement through the continued refinement and development of our data user personas. We will clearly highlight our areas of development against these user personas to track progress and output for the variety of data users to ensure a balanced approach is taken and validate our deliverables.

### Improving data quality

The ability to trust data is the basis for the business to transform into a data centric organisation that make decisions based on information from many different data sources rather than historical knowledge. We will demonstrate this increased engagement, interaction, and utilisation of data internally and externally to greater impact within the energy sector and beyond.

### Industry leading data and digitalisation strategy and action plan

Ensuring we have an industry leading Strategy and Action Plan is key to delivering for our customers and stakeholders. We will use maturity models to measure our progress and work with data and digitalisation experts to inform our output and next steps continuously to support this.

### Driving value from our systems and solutions

We need to measure the impact of our work; understand the value it has delivered and assess our responsiveness to customer needs. For each item captured in our action plan, we will provide insight on the benefits delivered to measure its success and impact. Utilising feedback from our data users will support further developments and new system implementations.

### Collaborating effectively

Continuing to collaborate effectively within the energy sector and wider will ensure we deliver optimised outcomes. Taking a lead on collaboration in this space is important to us and we will measure this through our implementation of collaborative developments. Capturing our collaborative efforts will demonstrate our continuing commitment to collaboration.

### Developing skills and capabilities

Having the right people, with the right skills is what will allow us to deliver our Strategy and Action Plan. Sharing how our Data and Digitalisation team is developing in terms of staff and skills as well as the business wide training taking place, further improving our organisational data literacy and understanding will enable our success to be effectively measured.

national**grid**