



Scottish & Southern
Electricity Networks

RIIO-ED2 Investment Decision Pack

Outage Notifications

Investment Reference No: 38/SSEPD/IT-CUST/OUTAGE



CONTENTS

1. Executive Summary	4
2. Investment Summary Table	4
3. Introduction and Background Information.....	5
4. Business Plan Fit	5
5. Optioneering	5
5.1.1 Alternative Options	6
6. Stakeholder Evidence	6
7. Analysis and Cost.....	6
7.1 Cost Profile	7
7.2 Benefits	7
7.2.1 Financial Benefits	7
7.2.2 Non-Financial Benefits	7
7.3 Key Assumptions	8
7.4 High Level Dependencies	8
7.5 Deliverability & Risk.....	8
8. Conclusion	8

Definitions and Abbreviations

BPDT	Business Plan Data Table
CAPEX	Capital Expenditure
CEG	Community Energy Group
CRM	Customer Relationship Management
DER	Distributed Energy Resources
DG	Distributed Generation
DSO	Distribution System Operator
EJP	Engineering Justification Paper
EV	Electric Vehicle
FTE	Full Time Equivalent
IDP	Investment Decision Pack
LCT	Low Carbon Technology
NPV	Net Present Value
OMS	Outage Management System
OPEX	Operational Expenditure
PLACAR	Plant and Circuits Asset Register

1. Executive Summary

Our Stakeholder, especially Vulnerable Customers and LCT suppliers, have requested multi-media advanced notification and regular updates on outages. We will also need to comply with the Operational Data Sharing future licence condition. This project will deliver these facilities, as well as providing a 2-way notification facility with LCT suppliers.

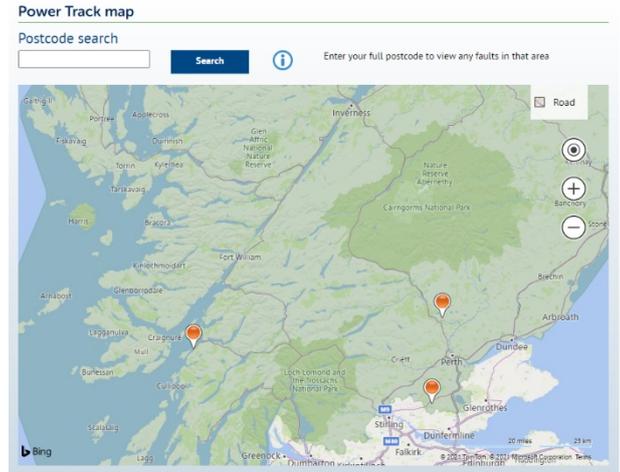
2. Investment Summary Table

Summary Table			
Name of Scheme / Programme	Outage Notifications		
Primary Investment Driver	Trusted and Valued Service		
Scheme Reference / Mechanism or Category	38/SSEPD/IT-CUST/OUTAGE		
Output References / Type			
Cost (CAPEX)	■		
Delivery Year	RIIO ED2		
Reporting Table	C4		
Outputs Included in RIIO ED1 Business Plan			
Spend Apportionment	ED1	ED2 ■	ED3

3. Introduction and Background Information

Customers are increasingly looking for multiple ways to engage with businesses whether through traditional telephone calls, email, or social media channels (WhatsApp, Facebook, Twitter etc). Multi channels give customers the choice to select the method that suits their needs at a given place or point in time. Currently planned outages are notified by sending a letter to an impacted property. This project will build upon our highly regarded PowerTrack system and open multiple streams of communication by offering customers a portal in which they can see any future impacts/planned work in their area.

Standard domestic or commercial customers will be able to select what method by which they receive information and updates as and when information becomes available in relation to an outage, opting to receive automated text messages / social media messages as a preferred mechanism. It will also allow us to introduce them to one our business partners, be the difference, to help support and create a free business resilience plan to help in the event customers are impacted, which will provide proactive solutions, rather than reactive.



An online portal will enable customers to see future impacted works on their area whilst also being able to look at previous planned outages including start dates, end dates and duration. Customers have been increasingly requiring historical data and outages held over the past few years and want to be able to plan to look at upcoming outages.

DER customers will also be able to see this standard information, alongside sharing information on any planned maintenance work they are looking to carry out, to potentially enable efficiencies and reduce downtime periods.

All of the above will be necessary to be able to comply with the future licence condition for Operational Data Sharing, especially in regard to 'outage notifications' (outage plans, specific site notification, historic constraint information, abnormal feeding arrangements).

4. Business Plan Fit

This project can be mapped to following strategic themes:

Progress to Net Zero	Safe, resilient and responsive networks	A trusted and valued service to customers and communities	Positive Impact on Society
✓	✓	✓	

5. Optioneering

This project will look to create links between core systems and social media channels, whilst also ensuring that applications hold data such as email addresses and mobile phone numbers to enable automated notifications can be sent in the event of an outage, subject to Data Triage (i.e. any security, privacy or commercial considerations).

Changes or activation of functionality will be required to existing platforms and tools to ensure pertinent information is captured. This includes:

- CRM, to ensure the correct people are notified, and only pertinent details are made available.
- OMS, for unplanned or planned outages.
- PowerOn, for any network issues.

- DSO Enablement (Orchestrator), for DER management.

An outage portal will link to the current Outage Management System to show any current/planned or previous outages, so customers can view any outages that have impacted or are likely to impact them.

DER customers will have additional functionality to view constraint information and outage information, whilst also being able to input any planned maintenance windows they may have. A link to the distribution system will enable a two-way link to the portal to capture and display the most up to date information. Further information could also be made available to them via our Tailored Insight tools. This will comply with the ENA Operational Data Sharing initiative (Distribution Code change) regarding outage planning, including:

- Site shutdown information, with date and time bounds of impact
- Network topology for EHV/HV with individual asset status
- Information on when market participants may be impacted and limited by planned and unplanned network outages.
- Abnormal supply point
- Standard 8 week ahead view (Distribution Code Programming Phase)
- Web portal or direct notification to DER via reporting (via our Tailored Insight project)
- Additional minimum data as set in Distribution Code

We currently expect this work to build on our existing tools and investment, however, will work with our supply chain to ensure that we are using the best value options overall. It will also replace a system called PLACAR (also known as Access Bookings) which is used for planning outages in the South.

5.1.1 Alternative Options

This project is to meet the requirements of Operational Data Sharing in regard to notifications of outages, both planned and unplanned, to the industry and other stakeholders. As such, we must provide a facility of some kind. It will also provide a facility to allow LCT suppliers to notify us of their outages. A manual system could deliver the basic information required, however it would not be able to provide near real time updates, nor would it provide a simple to use portal or other facility to allow LCT to deliver their information using method that is simple and efficient for them. Manual management of this requirement has therefore been discounted as a viable option.

Given the pace of development in IT solutions, however, the market will be re-examined throughout the project lifecycle to ensure the best value solutions at that time are chosen for delivery.

6. Stakeholder Evidence

Our engagements with Customers have shown a greater need for advanced notice of planned outages, using multiple forms of media, as well more frequent updates during outages. This is especially true for our Vulnerable Customers. Other Stakeholders, especially LCT suppliers, have requested a system based 2-way notification process. All this aligns with the future licence condition for Operational Data Sharing.

More details of overall stakeholder engagement are set out in the ***Digital Investment Plan (Annex 5.2)***.

7. Analysis and Cost

Costs have been built up using a bottom up approach and have been based on the best currently available solution. However, IT is a rapidly changing area, so the market will be re-examined prior to delivery, and the best value option to meet the requirements set out above will be chosen. The project has been assessed over a 5-year lifecycle, with both Opex and Benefits equated for that operational period, as IT projects often need updating after 5 years. NPVs of both 5 and 45 years have therefore been quoted below.

7.1 Cost Profile

This project has the following cost profile, rounded to 2 decimal places for simplicity. Costs and benefits have been set out in the years they are expected to occur. The project is to address the Operational Data Sharing requirement across the industry, and no viable alternative that meets all the requirements has been identified. The full build-up of costs is contained in the ED2 IT Investment Plan (Non-Op Capex) Cost Estimate spreadsheet.

	Total £'M	2023/24 £'M	2024/25 £'M	2025/26 £'M	2026/27 £'M	2027/28 £'M
CAPEX	■		■			
ED2 OPEX	■			■	■	■
ED2 Benefits	■		■	■	■	■
5 Year OPEX	■					
5 Year Benefits	■					
NPV (5 Year)	■					
NPV (45 Year)	■					

7.2 Benefits

7.2.1 Financial Benefits

No financial benefits have been identified at this point; however, they may become evident during the duration of the project.

7.2.2 Non-Financial Benefits

Non-Financial benefits include:

- Complying with the future licence condition for Operational Data Sharing, which if not met could come with a compliance fine. Cost of that fine is currently unknown.
- Meeting the requirements of Stakeholders, Customers and Regulator identified through engagement
- Reduced Complaints for Non-Notification hence a reduction in Guaranteed Standards Payments
- Other potential operational efficiency improvements.
- Reduce calls into Call Centre as Customers provided with the information they need, allowing other call handlers to deal with emergency situations and our most vulnerable
- Carbon Saving – Reduced travel for hand carding (note that current regulations state that impacted properties must receive a letter)

7.2.2.1 Foundation to other Projects/Initiatives

This will link to our Vulnerability Strategy in which vulnerable customers require pro-active updates when power outages occur.

7.3 Key Assumptions

Connectivity+ project will need to have completed to provide accurate and consistent network information.

SIMS Replacement (Phase 1) will deliver a new Outage Management System (OMS) that will open the ability to link with several different channels.

7.4 High Level Dependencies

This project is reliant on other projects, notably MDM, Data Lake & Analytics, and Connectivity++, as well as Open Door, and Investment Optimisation.

7.5 Deliverability & Risk

Our ***Ensuring Deliverability and a Resilient Workforce (Chapter 16)*** describes our approach to evidencing the deliverability of our overall plan as a package, and its individual components. Testing of our EJPs has prioritised assessment of efficiency and capacity, and this has ensured that we can demonstrate a credible plan to move from SSEN's ED1 performance to our target ED2 efficiency. We have also demonstrated that SSEN's in house and contractor options can, or will through investment or managed change, provide the capacity and skills at the right time, in the right locations. This assessment has been part of the regular assessment of our EJPs, IDPs and BPDs. Our ***Deliverability Strategy (Annex 16.1)*** and ***Supply Chain Strategy (Annex 16.2)*** are included in the Business plan Submission.

Our deliverability testing has identified a major strategic opportunity which is relevant to all EJPs.

- In ED2 SSEN will change the way Capital Expenditure is delivered, maximising synergies within the network to minimise disruptions for our customers. This is particularly relevant for a Price Control period where volumes of work are increasing across all work types.
- The principle is to develop and deliver Programmes of work, manage risk and complexity at Programme level and to develop strategic relationships with our Suppliers and Partners to enable efficiency realisation.

8. Conclusion

This project will meet the needs set out by our various external Stakeholders for granular and timely information to support the LCT market. It will also enable us to comply with the future licence condition for Operational Data Sharing. An IT based solution has been chosen as it will provide an 'on-demand' facility for our Stakeholders as the delays of a manually based service would not meet the industry requirements nor deliver on Stakeholder expectations.