

RIIO-ED2 Investment Decision Pack

Envirotrack

Investment Reference No: 25/SSEPD/IT/ASSET/ENVIROTRACK



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Definitions and Abbreviations

BPDT	Business Plan Data Table
CAPEX	Capital Expenditure
CEG	Community Energy Group
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
ODIF	Output Delivery Incentives - Financial
OPEX	Operational Expenditure
PCB	PolyChlorinated Biphenyl
SBTi	Science Based Targets initiative
SF6	Sulphur hexafluoride

1. Executive Summary

In ED2 we will need to be able to record and report Carbon and other Greenhouse Gas Emissions, and well as Natural Capital. In our Environmental Action Plan, we have stated that we will record and report Scope 1, 2 and 3 Emissions with a focus on embodied carbon, our wider impact on the environment and our progress on Natural Capital. However, to record and report this information outside of our core systems will be labour intensive, slow, and may well lead to inaccuracies. This project is to install new specialised applications, fully linked to our core asset management systems, for the management, recording and reporting of both the Emissions and Natural Capital impacts of our operations.

2. Investment Summary Table

Summary Table			
Name of Scheme / Programme	EnviroTrack		
Primary Investment Driver	Progress to Net Zero		
Scheme Reference / Mechanism or Category	25/SSEPD/IT-ASSET/ENVIROTRACK		
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

As part of our Net Zero plan, we need to ensure that we can fully track and manage all emissions from our network operations, whether direct (Scope 1&2)¹ or indirect (Scope 3), with an aim to minimising these as far as possible. This will require end to end processes for everything we do, whether building new assets, running and maintaining assets, or the efficient and safe disposal of decommissioned assets. To do this we need to ensure that we record all pertinent elements of work and impacts, including in the field, as well as embodied carbon from our supply chain. We will also need tools to effectively measure and manage any wider environmental impacts. All assessment and reporting will be based on science-based targets as accredited by the SBTi in October 2021. (<http://news.ssen.co.uk/news/all-articles/2021/october-2021/science-based-targets/>)

Our work can have impacts on the natural environment, and for that reason we commission many surveys and studies to ensure we select options with the least impact. Currently our tools for managing this work are disparate and inefficient. This plan includes tools to manage such work, especially in terms of making sure information is readily available to all who need it, including where appropriate external stakeholders.

We also expect to track Natural Capital, however the mechanisms for doing such work are still in discussion across the whole industry. The information needed for this will be collected as part of our existing processes and systems, as well as the new tools set out in this plan. Currently we expect to use our analytics tools (see the Analytics project) to develop reporting based on the latest Defra guidance, but in this rapidly developing field will consider other tools should they become available.

4. Business Plan Fit

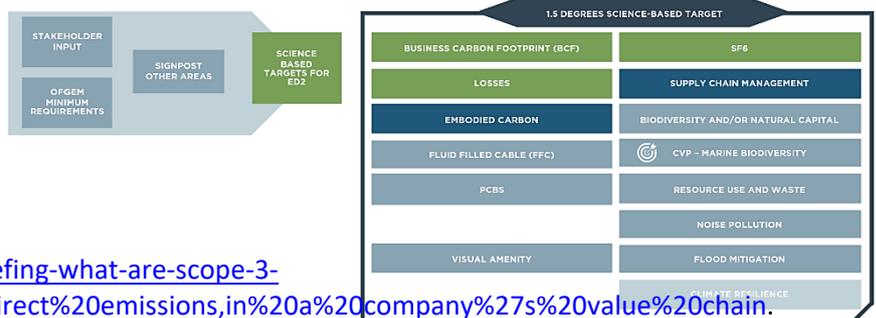
This project can be mapped to following strategic themes:

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

5. Optioneering

Much of the information we need to measure impacts is already recorded in our current systems, such as Work and Asset Management, where core details such as SF6 details can be recorded. As far as possible we will seek to use these tools to deliver this plan. Some information however, in particular surveys, are set out in reports, including photographs and videos, that are not readily accessible with these tools. There are also specialist tools needed to assess the total footprint of our works and operations. This plan will cover:

- Changes to existing platforms and tools to ensure pertinent information is captured. This includes:
 - Work and Asset Management.
 - Geographical Information System



¹ <https://www.carbontrust.com/resources/briefing-what-are-scope-3-emissions#:~:text=Scope%201%20covers%20direct%20emissions,in%20a%20company%27s%20value%20chain.>

- Building Information Modelling
- Data and Analytics
- Procurement
- Field based tools.
- New storage solutions to cover large surveys and similar.
- Ensure that our tools enable us to:
 - Record resource use and wastage (Scope 1 and 2, and Scope 3 where practicable).
 - Record any polychlorinated biphenyl (PCBs) that are removed.
 - Manage and record leakage from fluid filled cables
- Facilities to enable simple access to all necessary information, across our business at regular intervals.
- Facilities to allow external stakeholders to access pertinent information.
- New tools to ensure that the total footprint (direct and indirect, e.g. Scopes 1, 2 and 3) is always assessed in line with the latest guidance.
- Tools to efficiently manage the recording and reporting processes.
- Changes to processes to enable the above.

We would also want tool(s) to record any impacts we have regarding Biodiversity and Natural Capital, both positive and negative. At present there are no specific tools available to assess these impacts that reflect the calculations set out in the Defra guidance (<https://www.gov.uk/government/publications/enca-featured-tools-for-assessing-natural-capital-and-environmental-valuation/enabling-a-natural-capital-approach-tool-summaries>). Our current estimate has been based on using our analytics toolsets to replicate the calculations: should new tools become available, we would consider these on a cost benefit basis. We expect to be able to record and report Scope 1 & 2 for this area before the end of ED2.

5.1.1 Alternative Options

This work is required to meet new legal and regulatory requirements for reporting carbon impacts and biodiversity, so a do-nothing option is not acceptable.

The only alternative to the IT based solution would be a manual alternative. However, this will only partially deliver the outcomes required, as manual collation and processing of data would not deliver the speed of reporting required, nor would it deliver information in a searchable form. It also has a less beneficial NPV.

The proposed solution has been based on the best value combined solution that is currently available. However, given the pace of IT development, the market will be re-examined throughout its lifecycle to ensure the best value solutions at that time are chosen for delivery.

6. Stakeholder Evidence

Our Stakeholders support better transparency and reporting of our data, they agree this is in the interest of our customers. At our September and October ED2 engagement events, stakeholders from both licence areas advised us to ensure more proactive communications on the drive to net zero and to provide more assistance and support with connecting renewables, as this would enhance the service that customers currently receive. There was consensus across the workshops that we needed to take an active leadership role in educating, preparing and training their customers for the shift to DSO and net zero. It was highlighted that we could no longer simply be a neutral facilitating party but needed to adopt an advocacy role that provides a focal point for customers as the energy industry undergoes significant change. Being able to report on our environmental commitments with more accurately and timely, will enable transparent communications with our stakeholders and the ability to continuously influence our direction.

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 solutions. However, IT is a rapidly changing area, especially at present in the environmental management 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 and will be delivered as a series of iterations. The alternative option set out below only deliver basic carbon and natural capital information, and will not meet the expected minimum business plan targets (ODIF), so is only a partial alternative. 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 (Recommended Option)	■					
NPV 5 Year (Recommended Option)	■					
<i>NPV 5 Year (partial alternative Option)</i>	■					
<i>NPV 45 Year (partial alternative Option)</i>	■					

7.2 Benefits

7.2.1 Financial Benefits

	Total	Year 1	Year 2	Year 3	Year 4	Year 5
Remove need for additional resource that would be required to manually develop and update carbon footprint and natural capital assessments (2.5 people, SS08 rate). Without the new software and collation of data, additional specialist staff will be required to deliver this new license requirement.	■	■	■	■	■	■
Offset the need for additional resource to deliver new reporting areas (1 person, SS08 rate). Without the new software and collation of data, additional specialist staff will be required to deliver monthly reporting, and we will not be able to meet business plan min requirements.	■	■	■	■	■	■

The above benefit has been assessed on the basis of mitigating the need for 3.5 additional staff that would otherwise be required in RIIO-ED2 to assess and record carbon impacts and natural capital impacts. The figures are based on our standard rates for suitably qualified staff.

The following are financial benefits that are difficult to estimate;

- Actively manage assessments in near real time to ensure targets are met or exceeded
- Reputational damage to group if this work is not undertaken
- Not meeting minimum business plan targets (ODIF - possible financial impact to providing).

7.2.2 Non-Financial Benefits

This project has a number of non-financial benefits:

- Actively manage assessments in near real time to ensure targets are met or exceeded
- Reputational damage to group if this work is not undertaken
- Help us to meet our commitments for reducing and reporting emissions.
- Deliver the level of reporting required by Government and Regulator during the RIIO-ED2 period.
- Meet the expectations of our Stakeholders with regard to reporting of impacts and Open Data.

7.2.2.1 Foundation to other Projects/Initiatives

This project will provide a method enabling us to track our carbon footprint, supporting our drive towards Net Zero.

7.3 Key Assumptions

The current programme and costings assume that all planned RIIO-ED1 system changes will be complete before the start of RIIO-ED2. If some of the current planned application changes are not completed, this will increase the complexity, and hence cost and timescale, of this project.

The project has also been based on what is currently required in regard to the recording and reporting of environmental impacts, as well as best practice such as PAS 2080.

7.4 High Level Dependencies

The project relies on several other projects, in particular the Master Data Management and Data Lake project, in order to have simple access to all necessary information.

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 help us to actively manage, record and report Emissions and biodiversity impacts of our operations. By using standardised systems, fully linked to our core asset management systems, we can ensure timely and accurate information to both optimise our future performance and inform our Stakeholders. It also removes the need for additional resources to manually collate and report our impacts. Manual alternatives do not deliver all the functions required and have a less beneficial NPV.