RTS Control System Training Simulator

ED2 Engineering Justification Paper Addendum

ED2-NLR(O)-SPEN-005-RTS-EJP-ADD

Issue	Date	Comments
Issue 0.1	Aug 2022	Internal Draft for Review
Issue 0.2	Aug 2022	Internal Draft with Comments Addressed
Issue 1.0	Aug 2022	First Issue - Draft Determination Response

Scheme Names	RTS Control System Training Simulator
PCFM Cost Type	NLR(O)
Activity	RTS
Primary Investment Driver	Operational IT & Telecoms Risk Reduction
Reference	ED2-NLR(O)-SPEN-005-RTS-EJP-ADD
Output Type	Real Time Systems
Cost	**SPD:** £0.35m **SPM:** £0.27m
Delivery Year	2023-2028
Reporting Table	CV11
Outputs included in ED1	No
Business Plan Section	Maintaining a Safe & Resilient Network
Primary Annex	Annex 4A.16: Operational IT and Telecoms Strategy

Spend Apportionment	**ED1**	**ED2**	**ED3**
	£m	**£0.62m**	**£m**

	Proposed by	**Endorsed by**	**Approved by**
Name	Howard Perkins	Martyn Cunningham	John Gray
Signature	*Howard Perkins*	*Martyn Cunningham*	
Date	23.08.2022	23.08.2022	23.08.2022

1 Purpose

This addendum has been prepared to provide additional information and justification to ED2-NLR(O)-SPEN 005-RTS EJP RTS Control System Training Simulator and following receipt of RIIO-ED2 Draft Determination

The content of this addendum is in response to comments and feedback provided by Ofgem as to the "Unjustified" status of the EJP. The purpose of this document is to support Ofgem's assessment for Final Determination including supporting any associated impact on engineering adjustments within Ofgem's financial modelling.

2 Ofgem Comments & Feedback

2.1 RIIO-ED2 Draft Determination SPEN Annex

The following comments are taken from Table 26 of *"RIIO-ED2 Draft Determination SPEN Annex"*

Ofgem Comment Unjustified While we agree with the needs case; the cost information presented within the EJP, and therefore the associated CBA, is limited. This is mainly to do with the long-term use of the simulator where only the first 2 years have been planned.

Ofgem Identified Risks - There is a risk that both the needs case and optioneering provide insufficient justification for the works, in particular due to the limited cost information that has been provided.

3 Additional Justification

3 1 RTS Training Simulator Costs

The cost for the RTS Training Simulator is highly uncertain Such an application has not yet been developed We had an initial discussion with the PowerOn supplier GE They indicated that the cost would be in the region of £2m. We have not submitted this as we believe it does not meet the CBA threshold requirements. We believe that by working with this supplier we can develop an application that will allow scenario training for control engineers to practice incidents such as Storm Arwen or for black start capability.

Our Control Room Manager stated *Yes, this is needed as part of our resilience and readiness for ESR (black start) which is of course a fundamental requirement for all DNOs The ability to model and train for such exceptional situations will ensure we are better equipped to cope with the challenges of a real black start/severe storm/exceptional network event and will support our ability to restore customers quickly. The ability to analyse and review such situations, post-event, will help us to ensure that learnings are captured and*

operational improvements are identified wherever possible. These activities are in direct support of our customers in the most challenging circumstances, so I believe they are an important inclusion in our ED2 plan.

This application, once developed will then be shared with the other 3 DNO groups who use PowerON bringing benefit to the majority of customers in the UK

The cost model follows the following programme:

Table 1. Costs for RTS Training Simulator

Year	**2023/24**	**2024/25**	**2025/26**	**2026/27**	**2027/28**
Activity	Design, Procure and install Hardware. Develop simulator requirements	Procure Training simulator application and install	Licensing costs only		
Total(m)	£280K	£280K	£20K	£20K	£20K

The Ofgem comment *"This is mainly to do with the long-term use of the simulator where only the first 2 years have been planned"* is mistaken. The plan is to design and install over a two-year period with only £20K per annum license costs thereafter The solution will be used on a regular basis every year to train new control engineers and refresh the skills of those that are more experienced