XOSERVE
Project Trident

Project Trident

Outline Business Case

January 2026

Making
Energy
Data
Work

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1. Introduction

A Foreword from Xoserve CEO Steve Brittan

We are pleased to present the Outline Business Case (OBC) for Project Trident. Launched early in 2024, Project Trident has been established to safeguard the long-term future of the UK Link system: the mission-critical digital heart of Great Britain's gas market. Later that year, in September 2024, we published the Strategic Outline Case (SOC) for Project Trident, providing Customers with an understanding of how we intend to address the impending need to move UK Link from its present SAP ECC6 IS-U platform; with a target outcome of supporting UK Link operation through to at least 2040.

In the SOC, we presented six options for consideration, with the intention of alighting upon a preferred option. In order to achieve this, we have conducted a broad range of activities, including market engagement, Customer needs analysis, and in-depth due diligence on all six options.

This detailed analysis of relative cost and risk has enabled us to progressively reduce the number of options being considered for Project Trident. As we have developed our thinking, a preferred hypothesis has emerged; namely, a Brownfield SAP migration of the UK Link SAP ECC6 IS-U Core to an SAP S/4HANA platform, to be followed by an 'evolve' phase to simplify the core UK Link architecture.

This SAP migration approach retains all the existing software code at migration, with modifications kept to a minimum to make the code functional on S/4HANA. This has the additional benefit of significantly limiting the impact on Customers as changes to the Customer interfaces will be kept to a minimum.

In addition to our paper-based technology analysis, we have also been able to reference similar organisations who have undertaken comparable migrations in the energy sector, providing valuable insights and learning that we have taken on board.

We also gained significant insight from our market engagement earlier this year, which increasingly supported the preferred hypothesis. There are sophisticated tools now available to support the migration of SAP systems, which feature a high degree of automation. These tools provide in-depth analysis of code and data, designed to give Customers deep insights into what the migration journey would entail, and the ability to plan accordingly.

In order to validate the preferred hypothesis and test the advanced tooling, we created a 'Solution Definition' workstream – which entailed Xoserve performing a test migration of the UK Link SAP ECC6 IS-U Core and full UK Link database to SAP S/4HANA. The test migration completed successfully, providing valuable detailed insights into UK Link and building confidence that migration could be completed within an acceptable cutover time and at acceptable levels of risk. The work has also shown what preparatory work should be done on the UK Link platform, in preparation for a future SAP migration.

Considering the requirement for UK Link to be supported through to at least 2040, we are proposing that we will evolve the UK Link platform to simplify the current architecture, ensuring future flexibility and reducing the cost of future change. We are currently at the concept stage in understanding what we can do to ensure UK Link future flexibility through the evolution of UK Link, with further scoping work to be conducted as we build towards the Full Business Case (FBC). We intend to co-create the UK Link 'evolve' plan with our Customers and will establish stakeholder groups in early 2026.

From the work undertaken to date, it has become clear that the migration of UK Link to S/4HANA is lower in risk than originally anticipated, both by virtue of the tooling available to support such a migration, and because it can be completed quicker than first envisaged, with lower consequential impact on the industry. This opens the potential for Project Trident to do more, in the 'evolve' phase of the project, to meet the longer-term strategic objectives of delivering a UK Link system with the flexibility needed to support market development through the 2030s.

The FBC is the final outcome of our HM Treasury Green Book approach; and will be published after we have run the competition to appoint our preferred suppliers to undertake the design, build and test of Project Trident. The three steps, from Strategic, to Outline to Full Business Case provide increasing levels of confidence and fidelity in the plans we are making and is designed to transparently describe these to both Customers and market participants alike.

Value for money is a key consideration. It is widely accepted that the Green Book approach leads to systematic and rigorous consideration of options; and this coupled with an open, competitive process means we are confident we can demonstrate to Customers that best value for money will have been achieved.

Our present view is that Project Trident can be delivered within the cost envelope defined in the SOC. The FBC will provide us with a clearer view of the Project Trident cost envelope, as we gain insight through engagement from the market with our competitive procurement and supplier selection process, delivered throughout 2026.

Customers can also be reassured by the early appointment of the project's independent project assurance partner, PwC. PwC has reviewed the approach that we have been taking in developing the OBC and provides regular reports and findings to both the Xoserve Board and Customers.

To summarise, Xoserve has made considerable progress on Project Trident, and has laid the foundations for the project to be delivered successfully. As described in BP25, we have established the Intelligent Customer and Enterprise Architecture capabilities essential for us to be able to define, and competitively tender for, the project. Via our Solution Definition work, we have demonstrated that the proposed migration path is feasible, as well as within acceptable risk parameters and timescales.

We are grateful for the engagement and collaboration among many partners, including our Customers, market participants, and other central bodies, both in the UK and internationally. We look forward to continuing this collaboration as we move towards the FBC for this vital project.

Steve Brittan
CEO, Xoserve

2. Executive Summary

The Project Trident Outline Business Case (OBC) is structured in accordance with HM Treasury's Five Case 'Green Book' Model, providing a robust framework for decision making. This document sets out the Strategic, Economic, Commercial, Financial, and Management Cases for project investment, and outlines the next steps required to progress from the preferred option to procurement approach and confirmed financial cost envelope for the project before development of the Full Business Case (FBC).

This OBC sets out the rationale, options, and recommended approach for securing the long-term future of the UK Link system, the central data platform underpinning billing, settlement and administration of more than 25-million-meter points for Great Britain's gas market. Building on the Strategic Outline Case (SOC) published in September 2024, the OBC provides an updated analysis of the challenges facing UK Link as the current SAP ECC6 IS-U Core, integration components and reporting platforms approach end-of-life in 2027.

The OBC reaffirms the need for decisive action to safeguard the continuity and resilience of UK Link, ensuring it remains fit for purpose through to at least 2040. The case for change is driven by:

- the impending end of support for multiple SAP components within UK Link, including the SAP ECC 6 IS-U Core.
- future industry demands for flexibility and scalability of the future UK Link processing functionality and data.
- the opportunity to modernise the platform in line with future energy scenarios and regulatory requirements.

A comprehensive options appraisal has been undertaken, considering six potential pathways for UK Link's future. The options are:

- **Do Nothing:** Run UK Link without SAP product support.
- **Extended Support:** Run UK Link with extended third-party product support to 2040.
- **Alternative ERP:** Migrate UK Link Core and SAP components to alternative service provider; Energy/Utilities specific or alternative ERP.
- **SAP:** Migrate existing SAP Core to S/4HANA and migrate remaining SAP components going out of support with latest SAP equivalent.
- **SAP Hybrid:** Migrate existing SAP Core to S/4HANA and replace existing SAP components going out of support with SAP or alternative third-party technology option.
- **Custom Build:** Replace existing UK Link SAP components with a bespoke new-build alternative for UK Link.

These options have been assessed against the project objectives, architecture principles, market engagement outcomes and critical success factors (CSFs) which include strategic fit, affordability, value for money, capability, and achievability. The high-level analysis of the six options delivered a shortlist of SAP, SAP Hybrid and Custom Build to consider for further in-depth evaluation.

Following the assessment of the shortlist, a preferred option has been selected which is the SAP Hybrid approach:

- migrating the UK Link Core to SAP S/4HANA while enabling flexibility in the selection of integration and reporting SAP components.
- future flexibility is enabled by this option, through investment in microservices to reduced reliance on customisations in the SAP Core, and simplification of the data architecture, in contrast to today's UK Link system.

This preferred option balances risk, cost, future adaptability, and impact to customers, and is supported by:

- in-depth technical due diligence.
- Solution Definition Trial Migration project work described later in this OBC, and
- extensive engagement with industry leading experts, including those who have recently conducted programmes similar to Project Trident.

The preferred option also has the benefit of preserving the considerable investment made in UK Link over the years by industry, as most of the existing SAP IS-U Core can be migrated over onto the new SAP S/4HANA operating system.

We intend for Project Trident to deliver the preferred option through two phases of activity. The first phase will be to migrate the existing UK Link Core and in scope data, integration and reporting components to the new UK Link architecture. This will secure support for all the components nearing end of serviceable life within UK Link. The second phase is to focus on the improvement opportunities within the UK Link architecture.

This will be the 'evolve' phase of Project Trident, which we have already begun to explore with Customers through Pain Point workshops and engagement sessions which were delivered in 2025. The intention of the 'evolve' phase is to support longer-term strategic objectives, by delivering flexibility and adaptability for UK Link in the future. We intend to co-create the plan for the second phase of Project Trident with our Customers and we will be establishing stakeholder groups to scope the improvement opportunities for Project Trident to deliver in this phase of the project.

Whilst the preferred option has been selected to proceed with, if there is a material change to the commercial, technical or financial viability as currently evaluated, the full set of options will be revisited for further assessment.

We have a commercial model which envisages two procurements to enable delivery of Project Trident. The two procurements follow a standard Pre Qualification Questionnaire, Request For Proposal and Best And Final Offer construct.

The procurements will be staggered into a two-stage approach with the first stage procurement of a Transformation Partner providing:

- **support for stage two of procurement of the delivery partner**
- **technical and test assurance**
- **supplier management**
- **alignment with broader organisational programmes.**

The Core Services Partner will be procured to provide delivery of:

- design
- build
- test
- migration implementation
- run services.

The commercial model has been tested with the market, and we are confident of market appetite as well as capability to deliver a competitive procurement for Project Trident. The expectation from the engagement conversations is around 10-13 strong responses to our PQQ. The purpose of the commercial model is to deliver value for money and has the right checks and balances in place to ensure a competitive procurement, appropriate risk sharing between the various delivery partners, and also gives us the ability to retender packages of work within the lifetime of the contract, should supplier performance fall below agreed parameters.

A detailed cost model has been developed for Project Trident based on estimated costs gathered from expert sources. The project is expected to be delivered within a £110m cost envelope based on 2025 prices, which is in line with the estimates identified in the SOC and have been further verified as part of the BP26 planning process[1] which Customers have been engaged with.

Thorough Net Present Value analysis has been completed with the estimated costs and confirms the three shortlist options are financially viable and within the prescribed cost envelope from an investment perspective. We understand the greatest areas of risk uncertainty and will gain a better view of our costs through the procurement process. In the event of being unable to achieve a satisfactory final commercial outcome with SAP through our procurement process, we will review alternative Economic Case options.

Finally, the management of the Project Trident governance has been considered in detail. The governance model described in the SOC has proven appropriate to manage the current phase of the project, with further governance and rigour planned for procurement and delivery of the project. We have identified two Customer Advisors to represent the interests of our Customers transparently, as well as appointing PwC as independent project assurers to validate at key points in our lifecycle. We have a forward view of the plan with a likely timeline for our initial go-live from Autumn 2028 through to Spring 2030. We will refine this view as we engage the market further, informing the development of the FBC.

1 Xoserve 2026 Business Plan (BP26) Portal

3. Business Case Structure

The Project Trident business case structure is based on the HM Treasury Green Book industry-recognised approach. The Strategic Outline Case (SOC) was published using this methodology in September 2024. The next step in development is the Outline Business Case (OBC). The purpose of the OBC is to iterate upon the SOC, improving our analysis, and to identify a preferred option which Project Trident will consider. The final part of the process is the Full Business Case (FBC), where conclusions of the business case are presented.

3.1 The HM Treasury Green Book

This business case has been developed using the HM Treasury Green Book approach, not only to aid our decision-making process and test value for money, but also as a method of communicating to our stakeholders across the industry and gaining their meaningful input. Our business case is designed to be read by our Customers and other industry stakeholders who could be either directly or indirectly impacted by our project. The three iterations of the business case for Project Trident are designed to support our rationale for proceeding with Project Trident and explain how we propose to undertake the required changes.

3.1.1 The Strategic Outline Case

Many findings presented within the SOC have been retained and are developed further within this OBC. Significant findings included:

- objectives and scope:
  - a supported UK Link platform
  - preparation for future flexibility with like-for-like functionality
  - limited impact on Customers
  - potential opportunity to improve and modernise UK Link
- there are six options for further assessment in the OBC (Appendix 1)
- the cost range for delivery of this multi-year, large-scale project is estimated to be between £55m to £109m.

3.1.2 Introducing the Outline Business Case

The OBC provides an update to Project Trident's strategic context, clarification of the project's scope, further analysis of the shortlist of options, and additional commercial and financial assumptions before these are market-tested during the procurement phase. In line with HM Treasury's Green Book approach, the business case is presented across five dimensions. These are listed below.

Strategic Case

The Strategic Case confirms the case for change, and the scope and objectives of Project Trident. It will also include an update on future industry changes and the impact on UK Link future design requirements, together with analysis of how it will integrate with our future strategy evolution. Finally, benefits, risks, and dependencies have been revisited.

Economic Case

The Economic Case provides an assessment of the longlisted options, bringing them down to a shortlist. It also includes a Critical Success Factors (CSFs) assessment, market engagement outcomes, expert insight through a Proof of Concept (POC) investment, Enterprise Architecture analysis and external industry expert analysis. From this analysis a preliminary preferred option has been identified.

Commercial Case

The Commercial Case outlines the approach to procurement and commercial arrangements for Project Trident. It discusses the process for engaging with the market to inform the proposed commercial strategy, including how potential suppliers will be approached and the types of contracting options being considered. This confirms the procurement process which will support the transition of the preferred option to Project Trident solution.

Financial Case

The Financial Case provides insight into the indicative cost envelope to deliver Project Trident. There is confirmation of the funding arrangements and inclusion of how the project cost model has been established and developed.

Management Case

The Management Case details project governance arrangements, and partnerships that have been established to support delivery and the plan to deliver Project Trident.

3.1.3 Full Business Case

The HM Treasury Green Book FBC is the final iteration of the Project Trident business case. This will include confirmation of Project Trident justification, deliverability and value for money. The FBC ensures all key aspects of the project are thoroughly evaluated before a final investment decision is made. Within the FBC we will present our findings from market engagement through the procurement approach, certainty of commercial and financial dependencies.

The steps we will take to reach a conclusion are as follows:

1. engage the market with a Pre-Qualification Questionnaire (PQQ) and evaluate the input from potential suppliers
2. further engage the market through inviting selected PQQ respondents to answer a Request For Proposal (RFP)
3. outline the preferred option to confirm the project solution.

The table below indicates the level of completion of each section of the business case, in line with progression through the three iterations.

Table 1: HM Treasury Green Book Levels

Stage	Strategic Case	Economic Case	Commercial Case	Financial Case	Management Case
SOC	50%	40%	10%	10%	10%
OBC	80%	70%	65%	55%	55%
FBC	100%	100%	100%	100%	100%

4.Strategic Case

Project Trident is a necessary investment to secure and maintain the future of UK Link. With SAP ECC6 IS-U and multiple other integration and reporting SAP components within UK Link scheduled to reach the end of serviceable life in 2027,[2] Project Trident will be responsible for ensuring the delivery of a supported UK Link platform, reducing the risk to the Central Data Service Provider (CDSP) system landscape. There is also a need to consider the requirements of an evolving energy market, which will require future flexibility, and scalability of data, within UK Link.

Within our Outline Business Case (OBC) analysis, we have confirmed that the need for Project Trident remains strong, and that UK Link will be required to provide gas industry data processing ability up to 2040, as a minimum.

We expect there will continue to be a requirement for gas within the energy sector for the foreseeable future, at least up to 2040. However, based on future energy scenarios which have been forecast by the National Energy Systems Operator (NESO),[3] we understand that blending will be a requirement in the future, and potentially also an increase in meter read frequency – resulting in increasing data volumes. Therefore, there will likely be adjustments to gas data requirements which UK Link will need to accommodate. This will require UK Link to be flexible, and to scale in line with potential increases to the data volumes processed daily.

In summary

- **Project Trident is essential to maintain and futureproof UK Link, as key SAP components will become obsolete by 2027.**
- **NESO insight confirms Project Trident is needed to keep UK Link operational for gas industry data processing until at least 2040.**
- **UK Link must adapt to evolving energy market requirements, including increased data volumes and operational flexibility, driven by industry forecasts and changes in meter read frequency.**

2 SAP Support Strategy
3 NESO Future Energy Scenarios: Pathways to Net Zero

4.1 Strategic Context

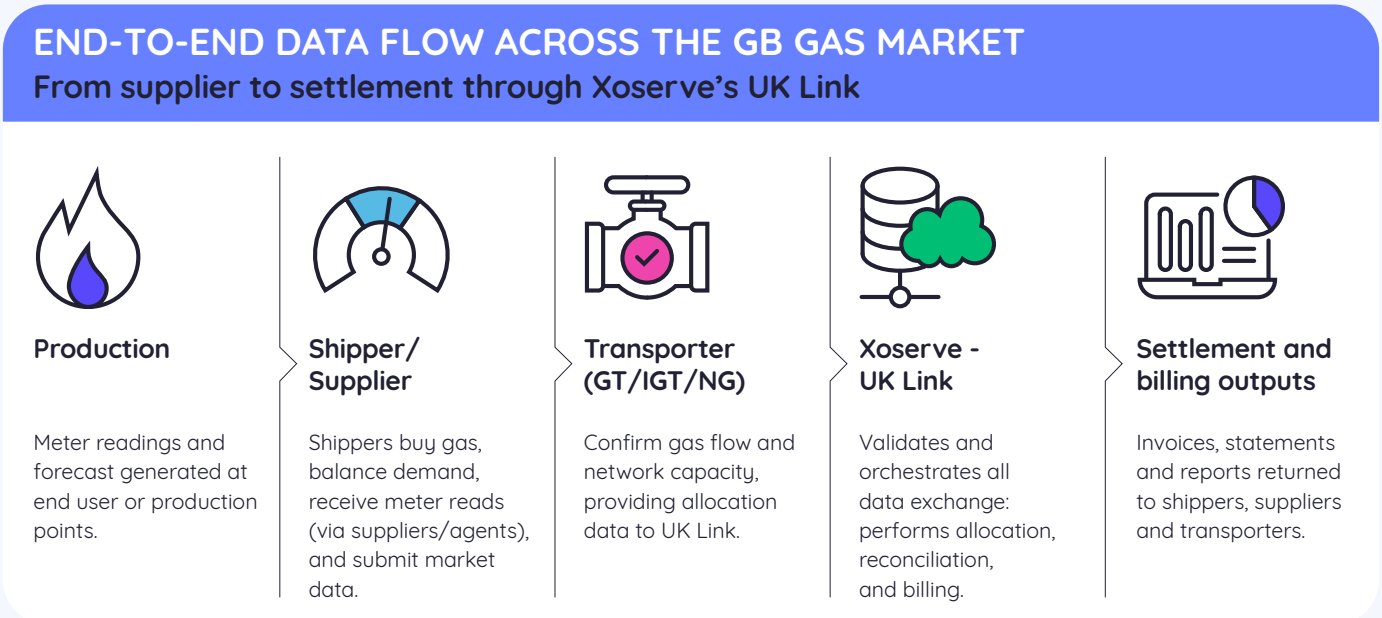
The strategic context provides an update on the industry change considerations which inform Project Trident's case for change and scope, previously covered in the Strategic Outline Case (SOC). In this section, we outline:

- an overview of UK Link
- acknowledgement of and alignment with future industry change scenarios
- our progress on delivering Xoserve's future strategy and how this supports Project Trident delivery
- how Project Trident should align with Xoserve future strategic projects
- how we have strategically included Customers in the Project Trident journey so far.

4.1.1 UK Link Overview

UK Link is the central system responsible for processing, managing and exchanging billing, settlement and meter point data across the gas industry. It ensures the secure handling of transactions, supports core business processes, and maintains data integrity between market participants, comprising shippers, suppliers and transporters. The platform underpins critical operations including registration, settlement and billing, enabling efficient and reliable market functioning.

Figure 1: Data Flow Diagram

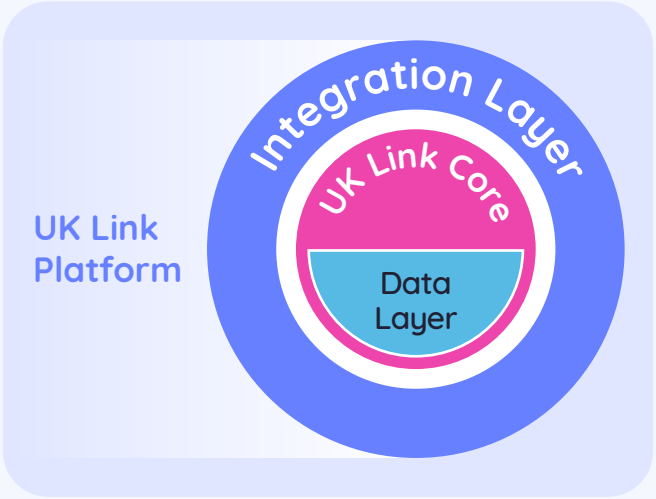


UK Link infrastructure currently processes the following annual data volumes: 1.8bn meter reads; £8bn in transportation invoices and £11bn in energy balancing invoices; and data from 25.5m gas meters.[4] This is important information for Project Trident to consider, as it indicates the size and scale of daily transactions UK Link facilitates. In relation to future industry change scenarios discussed in section 4.1.2 below, UK Link may be required to process increased data volumes and transactions, and deal with a changing gas meter profile, at least up to 2040.

UK Link is currently structured into three functional layers: the UK Link Core, the Data Layer and the Integration Layer. Each plays a crucial role in maintaining the platform's operational efficiency and security. These UK Link layers are referenced throughout this document, especially in the Economic Case, as they are key to understanding the technical scope. Each of the three layers of UK Link architecture has SAP components which will be nearing the end of service support between 2027 and 2030.

- The **UK Link Core** encompasses the central processing systems, largely powered by SAP products. This is where the bulk of transactional operations take place, handling essential activities such as registration, settlement and billing, which are fundamental to the gas industry's functioning.
- The **Data Layer** is responsible for storing, managing and safeguarding the vast quantities of data generated and exchanged by UK Link. It supports reporting and analytics so that decision-makers can rely on accurate, up-to-date information. The Data Layer sits within the UK Link Core.
- The **Integration Layer** acts as a bridge, connecting the UK Link's Core to other systems and services within the wider technology landscape. This layer ensures seamless data exchange between dependent systems and market participants, supporting interoperability and the secure movement of information across the industry.

Figure 2: UK Link Diagram



UK Link infrastructure currently processes the following annual data volumes:

1.8bn meter reads

£8bn in transportation invoices

£11bn in energy balancing invoices

data from **25.5m** gas meters.[4]

4 Xoserve Annual Report and Financial Statements 2024–2025

4.1.2 Future Industry Change

Within the SOC Strategic Case published September 2024 (section 2.5.1), we discussed future industry change in detail, based on the energy industry outlook available at the time. Since then, we have continued to review the industry future change horizon, including insight from our Strategy team, to help us form a forward-looking view of the gas industry and the energy sector.

The UK energy sector is undergoing transformation, including increases in:

- regulatory focus on decarbonisation through gas blending, as referenced in Ofgem's multi-year strategy[5]
- data transparency as outlined in the Ofgem data best practice guidelines[6]
- and system flexibility in line with the **Future Energy Scenarios** (FES) developed by the National Energy Systems Operator (NESO).[7]

Project Trident aligns with NESO's FES and Ofgem's strategic priorities, which will ensure UK Link remains a resilient, adaptable platform supporting market evolution through 2040 and beyond.

It is important to deliver a UK Link which is available for processing industry data, because NESO's FES indicate a continued reliance on gas within the network at least up to 2040. Whilst some progress has been made with blending and new investment in biomethane as an alternative to gas, the industry outlook discussed in the SOC continues to remain valid for the OBC. In addition to this, ongoing Code reform initiatives within the energy sector are also being closely monitored, as they have the potential to impact flexibility requirements in the UK Link system and changes to operational processes. It will be essential for Project Trident to retain the flexibility to enable UK Link to adapt to future changes arising from these reforms, ensuring ongoing compliance and alignment with industry standards.

NESO's latest **Future Energy Scenarios 2025: Pathway to Net Zero**[8] position highlights a continuing requirement for gas within the energy ecosystem and signs of a slowing down in the retirement of gas from our energy infrastructure. In addition to this, Ofgem's RIIO-3 Final Determinations report[9] indicates an ongoing need for a stable gas market into the future, with an expected slower transition to Net Zero increasing the need for a replacement to UK Link that will endure to at least 2040. We will continue to be relied upon for gas data processing in line with ongoing industry requirements. Both of these industry initiatives validate our assessment that the gas industry requires a UK Link platform to be fit for purpose up to at least 2040. Based on this insight, the Economic Case assessment of options must continue to include this industry need for UK Link through the 2030s. We have therefore included these criteria in the Critical Success Factors, against which the Project Trident options are assessed.

5 Ofgem : Our Strategy
6 Ofgem : Data Best Practice Guidance
7 NESO Future Energy Scenarios Information Page
8 NESO Future Energy Scenarios: Pathways to Net Zero
9 Ofgem : RIIO-3 Final Determinations – Gas Distribution

Further reading of the **Future Energy Scenarios 2025: Pathway to Net Zero** document reveals an ambition to accelerate policy[10] to encourage adoption of low-carbon technologies within those scenarios, and there is an expected meter point decline in the run-up to 2050. However, in the meantime there will likely be an increased reliance on gas industry data to support the move towards low-carbon technologies. This may mean a requirement for UK Link to process increased daily meter read data volumes, which would mean a scaling up of data for processing. In light of ongoing industry strategic plans, the potential for increased daily meter reads will need to be included in UK Link flexibility and data scaling needs.

An increase in data volumes will require a UK Link platform that can flex and scale to meet increasing demands. This will be considered central to the technical requirements when assessing the options for Project Trident.

The OBC will retain the requirements outlined in the SOC outlining the need for a UK Link that is flexible, scalable and agile, providing data for the gas industry up to 2040. We acknowledge that this is a sustained imperative for the OBC.

4.1.3 Xoserve Strategic Investment

We have continued to invest in the future Xoserve strategy, as outlined in our latest business plan (BP26[11]) document with supporting the delivery of Project Trident as a strategic source of investment, alongside delivering excellent and reliable 'business as usual' services in our role as CDSP for our Customers.

We have been investing in improving our internal capabilities to support smooth and successful project delivery, notably through the development of Intelligent Customer and Architecture for the CDSP estate, as highlighted in BP25.[12] We have applied lessons learned from previous project delivery across Xoserve and the broader industry. To ensure that we meet industry requirements, we plan to continue to engage and consult with our Customers on Project Trident delivery and decision-making. We will also actively manage this project, with robust governance and planning, and have invested in internal and external support to bolster our capabilities in this space, namely:

- A dedicated Stakeholder Engagement team. This team facilitates two-way communication through multiple channels with the industry, ensuring Customers have the opportunity to input into the project.
- We have strengthened our internal capabilities, with targeted investments in Enterprise Architecture and our Commercial and Procurement teams. These steps prepare us for onboarding dedicated Project Trident partners and suppliers to drive delivery.

10 NESO Future Energy Scenarios Key Messages and Actions
11 Xoserve 2026 Business Plan (BP26) Portal
12 Xoserve BP25 Final Version

- We have adopted the globally recognised The Open Group Architecture Framework (TOGAF) framework for Enterprise Architecture, in order to align capabilities with strategy, foster innovation, and enable future services. Additionally, we plan to appropriately harness the benefits of agentic artificial intelligence (AI) as this technology matures.
- We have strengthened our technical understanding through investing in support from SAP experts to better understand our UK Link technical infrastructure.
- We are building an experienced project team to support delivery, ensure governance and decision-making structures are in place, setting us up for success from the start, and investing in partnering with PwC for assurance. This will provide external insight into our Project Trident set up and delivery approach. It will ensure decisions are made in a considered way, with expected project enablers and mechanisms firmly in place to deliver a successful project.
- We have enhanced Xoserve vendor management processes to ensure consistent management of third parties. All Project Trident vendors are classified using a combination of overall contract risk and commercial complexity, within a Gold/Silver/Bronze tiering. Vendors are subject to a structured set of governance activities appropriate to tiering, with more frequent commercial governance for the more critical (Gold) vendors.

4.1.4 Technology Strategy

Project Trident follows Xoserve's broader technology strategy, aiming to ensure that the new UK Link platform will be architecturally simplified, scalable, future-proof, and built on the right technology foundations to support our long-term operational and industry responsibilities, through to at least 2040.

The Xoserve technology strategic ambition is:

- to increase CDSP agility through simplification and modernisation of our services
- to support Net Zero and Code reform
- to enable a flexible, scalable and adaptable technology ecosystem
- to align with and adopt future technology advances
- to improve capabilities and services offered to our Customers
- to reduce the cost, and time taken, to deliver ongoing industry change.

For UK Link, the CDSP technology strategy underpins an architectural shift away from the current inflexible architecture of the UK Link platform. This will include:

- securing support for the core to retain our data processing capability
- reducing the customisations within our core over time, increasing agility
- providing a flexible platform that enables dynamic scaling of data volumes in line with business cycle requirements
- creation of an accessible data lake, offering greater accessibility and flexibility to Customers in how they access and utilise their data.

4.1.5 CDSP Strategic Horizon

As CDSP for Great Britain's gas market, we are responsible for fulfilling the Data Service Contract (DSC) on behalf of industry participants. We contract with Correla to manage the technical data service on our behalf, through the DSC+ contract. The DSC+ terminates in 2030, and in BP26[13] we describe the start of the process to consider what the DSC+ contract should be replaced with, in order to deliver the DSC services needed for the 2030s.

Whilst Project Trident is focussed on the security and modernisation required for UK Link, this system is part of a wider ecosystem which is delivered under the DSC+ contract. Utilising our broad architectural capability, we will ensure synergy between what Project Trident is delivering for UK Link, the wider CDSP estate, and wider DSC+ contract expiry considerations.

We need to continue to actively review the impact of our external DSC+ dependency as we progress with Project Trident. Even with DSC+ expiry on the horizon, we cannot delay the need to secure support for and enable the future flexibility of UK Link. We will therefore ensure that Project Trident is not delivered in silo and links in with all future wider CDSP initiatives as it progresses. To support us with this link between Project Trident and wider Xoserve future initiatives, we will procure a Transformation Partner within Project Trident to establish integration points between Project Trident and wider Xoserve strategic initiatives. Further detail on the role of the Transformation Partner is provided in section 6.2.2.

4.1.6 Stakeholder Engagement

Project Trident is shaped through the consultative approach that we are taking with our Customers and the wider industry. We continuously ensure that our Customers can stay updated with the project and are able to meaningfully input into our decision-making process.

Our approach prioritises honest and collaborative information sharing, guided by two key principles:

- **Proactive sharing of information:** All Customers receive equal access to updates, with briefings distributed simultaneously to DSC Contract Managers and their representatives. Progress summaries are made easily accessible and dedicated Customer updates align with key milestones, each with specific objectives and clearly showing the link to Project Trident progress.
- **Purposeful engagement:** Throughout the process, we value two-way communication and actively solicit feedback, input and questions from Customers to guide the project.

To deliver on these principles, Project Trident has taken the following steps:

- We have recruited a dedicated Project Trident Stakeholder Engagement team. They deliver in line with the principles for both DSC Customers and central gas sector bodies, ensuring regular communications, progress updates, and the active solicitation of feedback.
- Our monthly newsletter is available for interested parties to subscribe to from across the industry. This now has 450+ subscribers.

13 Xoserve BP26 Statement of Planning Principles

- We utilise a variety of types of engagement. Our approach combines in-person and virtual briefings, governance forum presentations, one-to-one sessions, written consultations and interactive workshops.

Further Stakeholder engagement communication planning and structure is described in the Management Case section 8.4.

4.1.7 'Pain Point' Customer Consultation

Within the SOC we indicated that Project Trident would explore improvement opportunities for UK Link. We commenced a Customer consultation between June and July 2025 to begin to address the improvement opportunities for Project Trident to consider. We delivered a series of UK Link Customer 'pain point' workshops to enable us to engage our Customers directly. Within the workshops Customers discussed their experience with services, primarily focussed on UK Link. The conversation did expand beyond UK Link, however, and some improvements were identified which were considered outside the scope of Project Trident. All the pain points raised were captured in a comprehensive report.[14]

This UK Link pain point report was shared with DSC Contract Managers in August 2025. Following the initial report, each pain point underwent a feasibility assessment, evaluating possible resolutions and assigning them to the appropriate vehicle or work package. Not all the pain points were aligned with Project Trident. However, some of the pain points identified have been earmarked for further evaluation within Project Trident, ensuring they are reviewed in the context of the project's defined scope and schedule.

Pain points were grouped according to potential solutions, including:

- a Service Enhancement Program (pre-Trident, focusing on near-term improvements)
- Project Trident-related activity (improvements implemented during project delivery, pending feasibility and impact on timelines)
- CDSP Service Enhancement and Data Discovery Platform improvement programmes.

The information relating to the pain point feasibility assessment is detailed in the CDSP Service Enhancement Programme[15] Investment Proposal, which can be found in the BP26 Final Draft documentation.

We need to ensure that Project Trident's scope, as explained in section 4.4, will remain tightly controlled; both to reduce delivery risk and to ensure that we meet our objectives outlined in section 4.3.2. Any proposed changes to the existing scope, including these pain points, will go through the Project Trident Change Control and Impact Assessment approach. This ensures that any enhancements or new initiatives are assessed rigorously for feasibility, alignment and impact before being approved. If the proposed pain points are not accepted within the scope of Project Trident, they will be reassessed, and we will communicate the outcome, together with suggested next steps, to Customers. This structured approach ensures transparency, traceability and clear governance over how changes are managed.

14 Xoserve Pain Points Analysis Information 'The Tide' Issue 10
15 BP26 Investment Proposal : CDSP Service Enhancement Programme

4.2 Case For Change

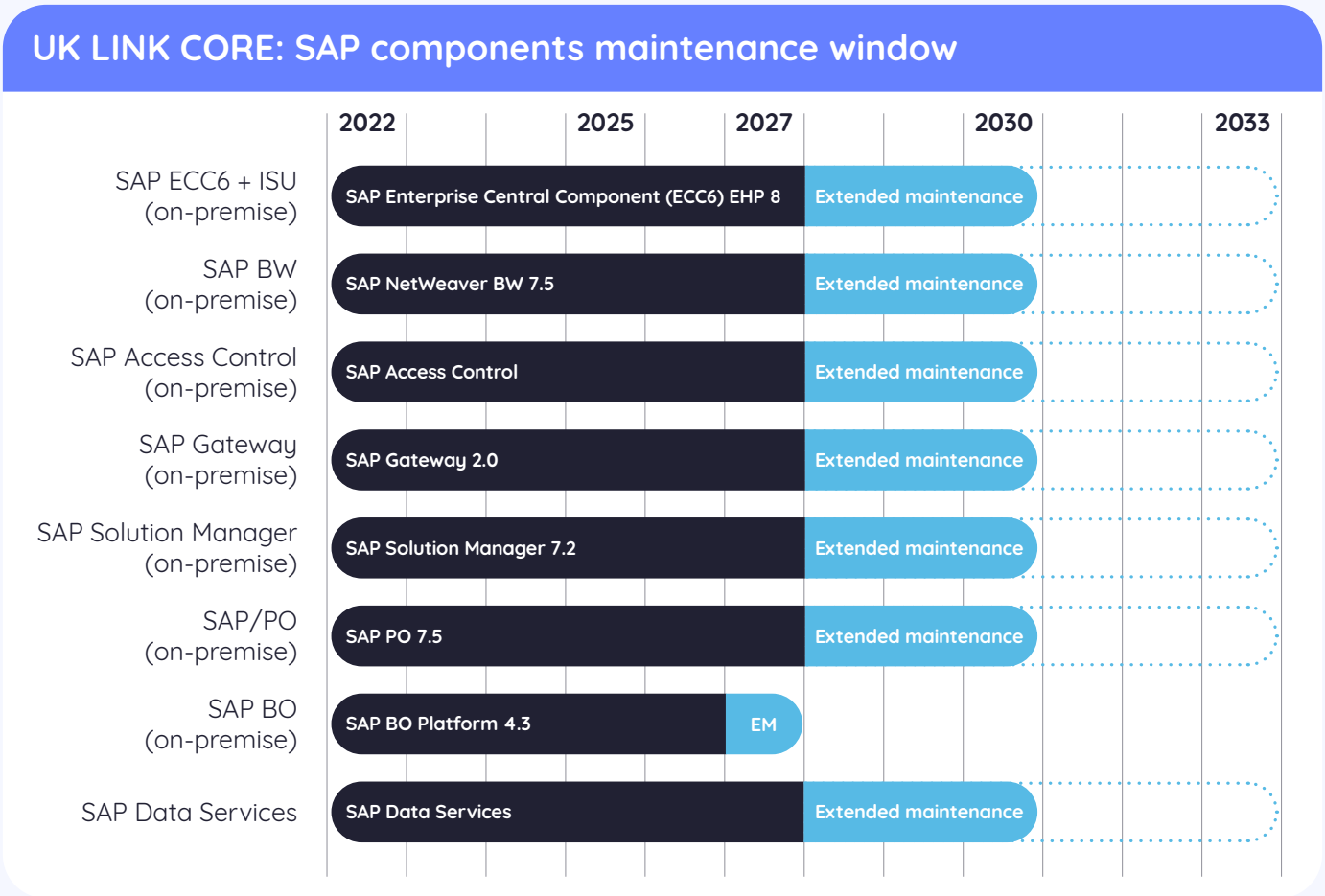
4.2.1 Building the Case for Change

As custodians of gas industry data and CDSP systems, we have a responsibility to ensure UK Link remains supported: to reduce the risk of system failure, enable the flexibility the industry requires and provide vital data as and when required. There are three UK Link considerations within the case for change:

1. Risk to the UK Link SAP ECC6 IS-U Core.
2. Risk to UK Link SAP components within the Data and Integration Layers.
3. Risk to the wider CDSP technology ecosystem integration and reporting, which is reliant on the UK Link platform.

The case for change is centred around securing a supported UK Link Core. In addition to this, multiple other SAP components are also nearing the end of their serviceable life, creating further risk to the platform. The table below identifies the pressing issue of SAP service maintenance cessation, identified in the SAP Product Availability Matrix for each of the SAP components within UK Link:

Figure 3: SAP Component Expiry



Project Trident's case for change includes the following SAP components within UK Link:

- SAP ECC6 IS-U Core – provides data processing for UK Link service capabilities e.g. supply point administration, asset updates, meter reads, invoicing, annual quantities etc
- SAP Business Warehouse (SAP BW) – provides storage of data, operational reporting and management information systems
- SAP Process Orchestration (SAP PO) – enables integration with SAP IS-U Core and other applications
- SAP Business Objects Data Services (SAP BODS) – provides Extract Transform Load (ETL) capabilities, processing data into SAP BW from SAP ECC and other sources
- SAP Business Objects and Business Intelligence (SAP BO/BI) – enables visualisation of the data in the BW system
- SAP NetWeaver/SAP Gateway (SAP NW/Gateway) – provides the foundation for SAP solutions
- SAP Solution Manager (SAP SOLMAN) – provides optimisation and automation of operational business processes and alerts
- SAP Access Control/Governance, Risk and Compliance (SAP AC/GRC) – provides governance for managing user system access and privileges, in order to manage risk.

4.3 Project Trident Objectives

4.3.1 Business Needs

As previously listed in the SOC, the core set of business needs to consider for successful project delivery is:

- a UK Link which is supported, and fit for purpose, up to 2040
- like-for-like UK Link functionality, as a minimum
- minimal disruption to Customers
- support for and facilitation of key gas industry processes as they exist today
- UK Link's ability to support future flexibility requirements and industry change priorities
- incorporation of any industry changes that are required between now and implementation of Project Trident
- maximise cost efficiencies, but not at the expense of Customer experience or UK Link security
- leveraging of the opportunity to improve and modernise UK Link infrastructure
- build in options for data flexibility, based on future energy scenarios predicted, and the potential increase in meter reads up to 2040.

4.3.2 Objectives

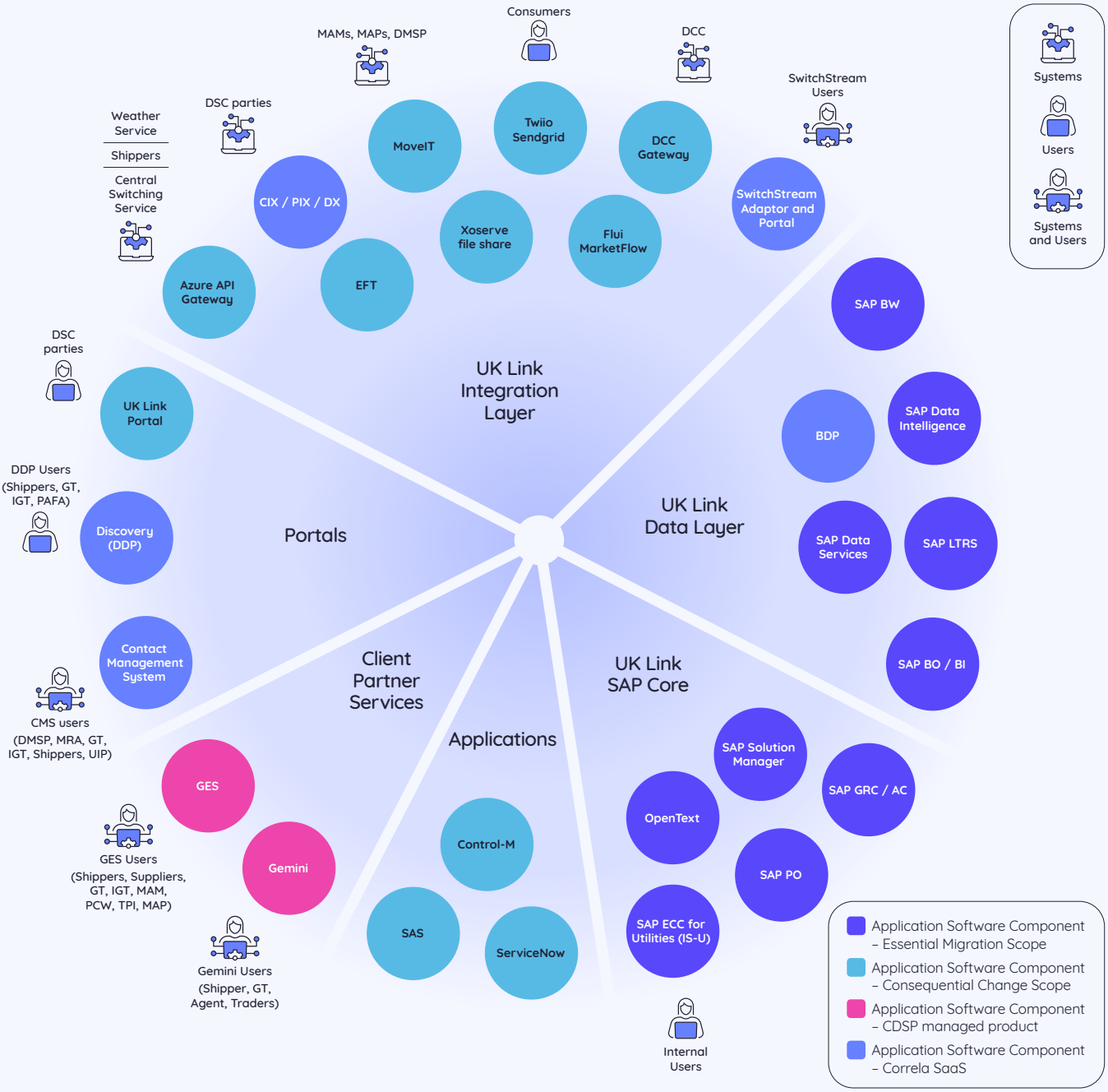
As outlined in the SOC, the project objectives are as follows:

- **Deliver a UK Link that, as a minimum, provides the same functionality for stakeholder groups as the system provides today.** The system will continue to reflect and enable changes to the Uniform Network Code, align to stakeholder data requirements, and ensure data accuracy and integrity. We will ensure the gas network is able to continue to operate in the way it does today, with settlement, billing, and consumption data readily accessible for market participants and stakeholder groups.
- **Deliver a more robust and modernised system** that is capable of efficiently adapting to future flexibility and data scaling requirements.
- **Limit changes to Customers at the point of cutover** and explore improvement options which may enhance the way Customers interact with UK Link data by considering innovation and futureproofing when deciding on the technical solution. With the changing technical demands and digitisation Customers are investing in, we must make sure the **UK Link of the future enables Customers to access their data in a way that is easy, open, reliable, and secure.** By providing more direct routes for data access, we will be able to streamline business processes and simplify the way Customers access and use the data they need for operational continuity.

4.4 Project Trident Scope

The scope of Project Trident is to secure support for UK Link and modernise the technical architecture. In addition to this, other systems within the CDSP landscape are also in scope as they will be impacted by the technical changes to UK Link. The diagram below identifies the platforms in the CDSP systems landscape which fall within the Project Trident scope remit:

Figure 4: Trident Scope – CDSP Systems Landscape



The scope of Project Trident can be defined into three categories – essential, consequential, and improvement opportunity.

Essential:

- Replacement of the UK Link SAP ECC6 IS-U Core and other SAP components which are nearing the end of their serviceable life – as listed in section 4.2.1.

Consequential:

- Consequential changes required to systems and products within the CDSP systems landscape for those services with integration points dependent on UK Link data, reporting and processing.
- These systems include portals, the Central Switching Service, Gemini, GES, Integration Layer products, data and analytics products, and Correla products (see diagram in Appendix 2).

Improvement opportunity:

- The whole of the UK Link platform is in scope for the identification of simplification and modernisation opportunities.
- Incorporation of solutions for pain points which Project Trident assesses as within the project remit, validated through a Stakeholder forum which we intend to initiate later in 2026.

4.5 Project Trident Benefits, Constraints and Risks

Project Trident is required to ensure the continuity of the UK Link system and its supported Services. We have identified the associated benefits, constraints and risks.

4.5.1 Benefits

There are potential benefits to Project Trident. These benefits have been updated from the SOC to reflect a more concise view of what Trident may deliver:

- continuity of the services that UK Link enables
- a modernised technology platform with enhancements to features
- investment in scalability of the UK Link platform, which will unlock some of the future industry challenges with data
- potential for Customer experience improvement when accessing data
- a potentially simplified UK Link system, enabling adaptability to accommodate future industry changes more efficiently
- an opportunity to build Customer confidence
- improved contractual and commercial terms with the Xoserve supply chain
- an opportunity to develop new services and capabilities, leveraging the advantages of new technology, such as agentic AI.

4.5.2 Constraints

Project Trident must consider the following constraints:

- Existing contractual and commercial agreements with our current service Providers.
- SAP Enterprise Architecture: The quality of institutional knowledge and documentation of some areas of the system needs to be further established. Investment in further Enterprise Architecture capabilities within Xoserve and Project Trident supports this consideration.

- SAP Core customisation: The current SAP ECC6 IS-U Core includes a number of customisations, which may constrain ability to use standard migration and upgrade pathways. Investment in our Solution Definition workstream has delivered improved knowledge of the number of customisations and complexity of the UK Link Core.
- Data volumes: The current SAP system holds very large data volumes, and this may constrain ability to migrate to new systems while maintaining data integrity and service.
- Market testing: The project will need to consider the testing of the upgraded UK Link required by market participants.

4.5.3 Strategic Risks

This non-exhaustive list contains the strategic risks to consider alongside the initiation of Project Trident:

- Impact to live service: If we take no action within the set timeframe, customer service in the gas market may be disrupted. Failing to decide or act on UK Link risks losing access to essential stakeholder data after SAP support ends.
- Scope creep in Project Trident's initiation phase could delay solution agreement and investment. Strategic, timely planning is vital for major technology projects.
- We need to ensure the solution continues to remain secure throughout the migration/ transformation.
- Funding requests for Project Trident may not present a strong enough business case to secure the necessary funding, risking failure to achieve its target benefits. Delays in funding requests could also prevent access to the most cost-effective ERP procurement options.
- The implementation of Project Trident is taking place at a time when the energy industry is working through some challenging change programmes, and is focussed on other industry programmes such as Market-wide Half-hourly Settlement. Adding an additional project to an already challenging change load may prove to be a risk and will require careful scheduling.

In summary, while Project Trident presents significant benefits including service continuity, technological modernisation and improved customer experience, we also face notable constraints and strategic risks. To address these challenges, we will invest in robust project planning and capability. We will ensure stakeholder engagement, clear governance and careful planning to mitigate and reduce risks.

Prioritisation of investment in technical and architecture capabilities will help tackle knowledge gaps and address how best to upgrade system customisations, while automated migration tooling and comprehensive market testing – with customer involvement – will support mitigation of data and service continuity risks.

Ensuring a secure, well-communicated change process, alongside timely and compelling funding submissions, will be essential to maintaining industry confidence and securing necessary resources. By proactively managing these areas, Project Trident can maximise its positive impact and successfully navigate the complexities of the energy sector's ongoing transformation.

5. Economic Case

The Economic Case validates SAP Hybrid as the preferred option for Project Trident to take forward to procurement. The longlist of six options was down-selected to a shortlist using a detailed assessment process focussing on the Critical Success Factors (CSFs) led by our Enterprise Architecture, Commercial and Finance teams. A structured evaluation of the shortlist has enabled us to arrive at the preferred option.

In summary

- The Economic Case confirms SAP Hybrid as the preferred solution for Project Trident.
- Six initial options were considered and then reduced to a shortlist through a comprehensive assessment.
- Architecture, Commercial and Finance teams led the CSF evaluation process.
- A structured assessment of the shortlisted options identified SAP Hybrid as the best fit to take forward for procurement.

5.1 The Options: Longlist to Shortlist

In the Strategic Outline Case (SOC), we identified a longlist of six options applicable to Project Trident. Within the Outline Business Case (OBC) we have further assessed the longlist. We have conducted a down-select assessment process, applied this assessment to the six options, and formed a shortlist of three options. The table below provides an update on the option descriptions for the OBC:

Table 2: Project Trident Longlist Options

Option Title SOC	Option Title OBC	OBC Updated Description
Do Nothing	**Do Nothing**	Run UK Link without SAP product support
Extend Support	**Extended Support**	Run UK Link with extended third-party product support to 2040
Alternative Enterprise Resource Planning (ERP) Package	**Alternative ERP**	Migrate UK Link Core and SAP components to alternative service provider (energy/utilities-specific or alternative ERP)
SAP Renewal	**SAP**	Migrate existing SAP Core to S/4HANA and migrate remaining SAP components (i.e. those going out of support) with latest SAP equivalent
Hybrid	**SAP Hybrid**	Migrate existing SAP Core to S/4HANA and replace existing SAP components going out of support with SAP or alternative third-party technology option
Self-Build	**Custom Build**	Replace existing UK Link SAP components with a bespoke alternative for UK Link

5.1.1 Longlist Options Assessment

We have followed a structured process to down-select our longlist options to form the shortlist. This has included an assessment of alignment with Project Trident objectives and CSFs, a market engagement activity and an architecture principles assessment (see Appendices 3, 4 and 5). The down-select of options was communicated in the March 2025 edition of **The Tide**[16] newsletter.

The options carried forward for the shortlist are therefore SAP, SAP Hybrid and Custom Build.

Table 3: Options Assessment Outcomes

Assessment	Do Nothing	Extend Support	SAP	Alternative ERP	SAP Hybrid	Custom Build
Project Trident Objectives Alignment	Not Aligned	Not Aligned	Aligned	Not Aligned	Aligned	Aligned
High Level CSFs Assessment	Not Aligned	Not Aligned	Aligned	Not Aligned	Aligned	Aligned
Market Engagement Response	Not Aligned	Not Aligned	Aligned	Not Aligned	Aligned	Aligned
Architecture Principles Assessment	Not Aligned	Not Aligned	Aligned	Not Aligned	Aligned	Aligned

Aligned Not Aligned

16 The Tide Project Trident Newsletter: March 2025 Edition

5.1.2 Shortlist Options Carried Forward

To provide further analysis, we added depth to the definition of each option. The shortlist options are:

SAP

Replace existing SAP components going out of support with latest SAP equivalent. This will include a migration from SAP ECC6 IS-U to SAP S/4HANA for Utilities. The remaining SAP components will be upgraded to an SAP equivalent.

SAP Hybrid

Replace existing SAP components going out of support, which will include a migration from SAP ECC6 IS-U to SAP S/4HANA for Utilities. There will be optionality in product selection for the remaining SAP components in scope, which are within the Integration and Data Layers. This will allow us to select products best suited to our requirements for UK Link integration and reporting product areas. There will be an assessment using architectural, financial and commercial criteria of the SAP upgrade pathways and third-party alternatives to establish the best product solution for each component replaced, in line with target technology architecture requirements. If we establish that SAP products are most aligned with the selection criteria for the components in scope, then the SAP option will be selected over the third-party option.

Custom Build

Replace existing UK Link SAP components with a bespoke custom-built UK Link platform. This will include removal of SAP from the estate and an architectural redesign of UK Link in line with target technology architecture requirements and existing Uniform Network Code (UNC) requirements, based on the need to rebuild the system.

5.2 Shortlist Technical Due Diligence

This section summarises the technical information used to support our assessment of the shortlist options. We have engaged with external experts to gain deep-dive insight into the technical, financial, commercial and time considerations we need to assess for the options.

We executed a Proof of Concept (POC) migration of our existing UK Link application to the target SAP S/4HANA platform, in conjunction with external experts. We reviewed relevant industry case studies, delivered the SAP migration POC, and engaged with industry leaders to explore a bespoke platform pathway. We then applied the learning to our CSF deep-dive assessment of the shortlist.

5.2.1 Case Study

The Project Trident team have been engaging with industry and technical experts to better understand how other organisations in similar industries are making decisions on the future of their data platforms. We have been conscious of our complex customisation of our SAP Core, our industry transition journey and the size and scale of the data we process as CDSP. We have selected the following SAP migration to S/4HANA case study as a good example of an organisation within the European gas market which best aligns with our own industry and organisation.

SAP migration to S/4HANA Case Study

The closest example of a successful SAP ECC6 IS-U to SAP S/4HANA technical migration programme is that at the Gaz Réseau Distribution France (GrDF) – a French organisation with similar responsibilities as Xoserve in the gas industry. GrDF has run SAP ECC6 IS-U for many years, with Accenture as the System Integrator (SI), and has c.12 million Customers. They have chosen an SAP Brownfield[17] migration solution to upgrade its SAP ECC6 IS-U Core to an SAP S/4HANA for Utilities Core, and has already delivered several important milestones in this process. One of these is that SAP IS-U will operate and function as required when the transformation is concluded.

For the solution and delivery of the project, GrDF delivered an SAP Brownfield migration with the existing SAP ECC6 IS-U Core, utilising migration automation tooling. This aided the transfer of SAP customised code from GrDF's SAP ECC6 IS-U Core to the SAP S/4HANA Core. This means the company has transferred all core customisation into the new SAP S/4HANA Core using smartShift[18] technology. This carryover of the customisations during the migration has ensured like-for-like processing functionality continuity. In addition to this, SNP CrystalBridge[19] has been utilised to aid data migration, reducing downtime at cutover.

The project has now progressed to a transformational stage, in which GrDF is looking at how it can reduce some of the core customisations migrated over to S/4HANA, to deliver a more modular and simplified data processing capability at the core. This will support a more flexible system to facilitate future changes required by the industry.

The key learnings from the case study are:

- customisations in SAP ECC6 IS-U Core can migrate to S/4HANA for Utilities Core
- available data migration tooling such as SNP CrystalBridge, and code migration tooling such as smartShift, can successfully reduce risk at cutover
- once the S/4HANA for Utilities SAP Brownfield migration is complete, there is an opportunity to move into a transformation stage where customisations can be re-factored into microservices (see next section)
- code customisations in the SAP Core can be reduced over time.

17 SAP Brownfield Migration Explanation
18 smartShift Reference Information
19 SNP CrystalBridge reference Information

5.2.2 Solution Definition

In April 2024 we commissioned an early study to better understand the options available for the soon to be expiring SAP ECC6 IS-U Core. As part of the Statement of Work, a POC exercise was completed to establish the feasibility of migrating from SAP ECC6 IS-U to SAP S/4HANA. The outcome of this POC provided useful insight into the considerations and complexities of an SAP migration for UK Link. The POC indicated the migration path could be particularly challenging due to the customisations in the SAP Core, and question marks over the compatibility with S/4HANA for a 'lift-and-shift' migration.

The informed outcome of the exploratory POC was the following:

- it would be a highly complex task to migrate the SAP Core
- the whole of the SAP ECC6 Core might need to be rebuilt in S/4HANA
- the potential to require a rebuild could mean the project to deliver this would be costly and time-consuming
- indications are that it could take over seven days to complete the migration.

This initial POC provided valuable insights and indicated more exploratory work was required to understand the pathway for an SAP migration in more detail.

Following the publication of the SOC, where we established our six longlist options, we went on to explore the options further, including undertaking a market engagement exercise for further insight, following publication of our Project Trident SOC. Based on feedback from the 17 respondents, we established that whilst none of the options are risk-free, there is opportunity within the SAP and SAP Hybrid options to reduce the risk of migrating the UK Link SAP ECC6 Core to SAP S/4HANA by utilising existing automation migration tooling.

We decided to further explore the SAP migration pathway, based on the important information provided by the initial POC and market engagement exercises. To do so, we engaged SAP experts Resulting IT and Esyasoft to deliver further SAP ECC6 to SAP S/4HANA analysis via a supplementary POC exercise focussing on migration options available. The information provided by the GrDF case study, discussed in section 5.2.1, indicated we should consider an SAP Brownfield migration pathway, enabling the transfer of code customisations from SAP ECC6 to SAP S/4HANA, supported with automated migration tooling. This POC exercise was named the Solution Definition project and has now been completed. The intention of the Solution Definition project was to:

- provide confidence that an SAP Brownfield migration is possible for UK Link
- confirm that the automation migration tooling would work for UK Link SAP customisation migration
- confirm smartShift tooling will enable customised code migration to the SAP S/4HANA Core
- provide assurance of 'Near Zero Downtime' (NZDT) to reduce delivery cutover risk. This work included taking guidance from experts SNP on their CrystalBridge data migration tooling, which is available to support this.

The findings of the Solution Definition project provide assurance that a UK Link upgrade through SAP Brownfield migration can be achieved without major process redesign, while simultaneously securing service continuity and mitigating the risks associated with technology obsolescence.

A second part to the Solution Definition project was exploring modernisation of the UK Link Core – the next step after SAP migration. This modernisation proposal included the exploration of microservices following a paper-based exercise conducted by Esyasoft. Microservices are small, independent components that replicate or replace customisation without performing a full rebuild of the entire system. Microservices allow organisations like Xoserve, which are reliant on legacy SAP estates, to modulate and modernise parts of the architecture. Microservices can be designed and implemented for SAP S/4HANA solutions regardless of hosting or SAP component replacement optionality. They are built to develop logic and to extract or update data based on functional process requirements. This is achieved whilst retaining the functionality of the SAP Core.

As part of the Solution Definition project, we wanted to confirm that microservices are available as an approach for providing future flexibility within UK Link. All UK Link processes were assessed for suitability, with two specific processes, Flow-Weighted Average Calorific Value (FWACV) and Read Validation Upload (RVU), chosen for a paper-based outcome assessment. These processes were selected as they are currently complex to change, but changes are frequent or may be complex to carry out in the future. They are both also complex in design and have a broad impact across the UK Link system.

The paper-based assessment indicated that microservices would be an achievable solution for these two processes.

Solution Definition Key Findings

The Solution Definition project confirmed the feasibility of the SAP Hybrid option, evidenced by a successful POC migration of the UK Link Core to SAP S/4HANA for Utilities, with no major process redesign required.

Key findings from the project are:

- **Database health:** The current UK Link SAP Core production database can be reduced by c.50% through disk defragmentation and index rebuild, improving performance and lowering migration risk.
- **Data footprint:** The UK Link SAP Core active data footprint can be further reduced via archiving, aligned to the future UNC[20] cut-off date[21] with virtualised archive tables retaining on-demand access.
- **Cutover downtime window:** Despite the high volume concentration in billing datasets, data migration is feasible using NZDT techniques, with an indicative downtime window of c.25 hours based on SNP's CrystalBridge[22] NZDT assessment.
- **Functional fit:** Analysis of SAP S/4HANA for Utilities readiness checks indicates minimal conflicts with existing UK Link processes; meaning only minor adjustments are required.

20 Joint Office of Gas Transporters UNC Document
21 Change Proposal for XRN 5922 Cut-off Dates, Change Proposal for XRN 5914 Cut-off Dates
22 SNP CrystalBridge NZDT

- **Custom code:** smartShift[23] provided an insight into the current code base and assessed that it is below typical industry size. Analysis over the past 18 months suggests that approximately 28% of the code base remains unused (although a longer review period is recommended to further refine this percentage). Using market-leading automation tools, around 95% of remediation efforts can be automated across all issues identified, 100% target state technical compatibility guarantee for mandatory fixes.
- **Feasible migration path confirmed:** End-to-end Brownfield conversion of UK Link Core ECC6 IS-U pre-production copy to SAP S/4HANA for Utilities 2023 has been successfully executed on Azure, with zero data inconsistencies. The final HANA database size is 12TB versus 17.8TB for the equivalent ECC6 IS-U (excluding archived tables), delivering c.33% compression.
- **Migration risk can be further reduced:** Automated code remediation and pre-migration initiatives such as housekeeping and data archiving can further increase migration certainty.
- **No material blockers across UK Link layers:** No blockers were identified across any of the Core, Data and Integration Layers.
- **Selective microservices path validated:** Targeted microservices adoption can improve interoperability and scalability in specific process domains; although further prioritisation and overall design are required to scope and plan implementation.
- **UK Link component optionality:** Evaluation of optionality for our Integration Layer was undertaken as a paper-based exercise. An evaluation of SAP Integration Suite[24] and Boomi,[25] an alternative to the SAP product, indicated that both platforms provide a range of integration capabilities. Implementing these options can replicate current functionalities and introduce features designed to address future requirements and changing business needs. This approach aims to update the integration strategy by replacing legacy components with solutions that are more agile, scalable and cloud-native. Both platforms support integration methods such as API-led connectivity, event-driven processing, and low-code orchestration, which help adapt to ongoing changes in business requirements.

23 smartShift Difference: Smarter SAO Transformations
24 SAP Business Technology Platform Overview
25 Boomi Platform Overview

5.2.3 Custom Build Reports

To understand the benefits, risks, costs and timelines for a bespoke platform build for UK Link, we engaged CGI and Netcompany to provide professional insight into how this could be approached. Both are IT consultancies with global and European-wide industry-leading reputations, and with experience of both monolithic technology[26] platform projects and custom build innovation programmes.

Benchmarking Exercise

CGI has designed, built and operated central market systems for utilities and energy markets in the UK and globally, including the UK electricity market and the UK competitive business-to-business water market. CGI was tasked to produce a report outlining and validating cost estimates for bespoke replacement of core for UK Link by benchmarking nine large-scale transformation projects. It was acknowledged that a rebuild of the UK Link system would be required, which would need detailed requirements and focus on understanding UK Link functionality. The approach for this assessment was a top-down approach, based on a high-level understanding of UK Link.

Key Findings:

- Scope and governance requirements are likely to have more impact than technology choice.
- Long-term investment has often exceeded initial build costs.
- There are likely to be reduced run costs compared to the current legacy system.
- Comparator projects have adopted modern architectures: API-first, cloud-hosted, event-driven.
- Early investment in data quality, and phased onboarding, reduces risk.
- The cost of the product is market-driven, with the assessment confirming that pricing for 'off-the-shelf' or 'commercial off-the-shelf' solutions, such as SAP, is not driven by supplier cost, but by market value: i.e. what the buyer is prepared to pay. Put simply, SAP and similar vendors price to the market, not to their cost base.
- There is a need to recruit dedicated SMEs to support requirements, which has proved to be a challenge.

26 Microservices and Monolithic Platforms Overview

Design Options Report

Netcompany has delivered large-scale digital platforms and transformation projects for energy, utilities and government clients across Europe. Drawing on Netcompany's expert insight, a report has been produced outlining the feasibility, scope and design options for a custom-built UK Link replacement, including a Rough Order of Magnitude (ROM) cost estimate and solution approach. The approach applied was bottom-up, based on information provided in a series of workshops with Netcompany technology experts.

Key Findings:

- Custom Build is feasible and supports UK Link stability, scalability and compliance.
- Custom Build is likely to deliver lower run costs than an ERP option, due to the cost of licences. However, there is extensive increased risk to delivery of this option.
- The architecture includes event-driven microservices, is modular, and cloud-agnostic using Pulse framework.
- There will be a need for detailed requirements insight to deliver functional parity with the existing SAP-based UK Link; over 20 inbound/outbound patterns have been identified, making this option complex in delivery.
- There will need to be a comprehensive testing and assurance approach, including parallel operation, for seamless transition.
- There will also need to be detailed industry testing, as this would be a complete rebuild of UK Link.

5.3 Shortlist Assessment

The assessment of the shortlist options will encompass a comprehensive evaluation of each of the three proposed solutions: SAP, SAP Hybrid and Custom Build. This will include an analysis of technical fit, commercial viability, long-term sustainability, and overall cost implications. Additionally, considerations such as ease of integration, alignment with organisational strategy and future scalability will also be thoroughly reviewed to ensure the optimal path is selected.

5.3.1 Options Overview

The table below provides a high-level overview of what is proposed for each option:

Table 4: Shortlist Options Outlined

	SAP	SAP Hybrid	Custom Build
UK Link Core	Migration to SAP S/4HANA	Migration to SAP S/4HANA	Bespoke product
Data and Integration Layers	Replace out-of-service SAP components with SAP upgrades/products	Replace out-of-service SAP components with a third-party option or equivalent SAP upgrades/products*	Bespoke product for component replacements
Future Flexibility and Scalability	Investment in microservices	Investment in microservices	Bespoke products or microservices

* In the event an assessment of components deems SAP products to be the most appropriate for the Data and Integration Layers, the SAP and SAP Hybrid options will effectively be equivalent.

5.3.2 Custom Build Option

The Custom Build option involves developing a bespoke solution for UK Link, constructed entirely from the ground up, removing UK Link reliance on SAP and delivering a technically aligned architecture. This approach provides complete architectural freedom, allowing the solution to be tailored precisely to organisational and UNC requirements, and to offer future flexibility of strategic direction. It moves away from reliance on SAP or any other off-the-shelf platforms, ensuring independence and the ability to implement specific features and integrations as needed.

Option overview:

- UK Link Core, Data Layer and Integration Layer will be replaced with a bespoke, self-built product.
- Optionality for microservices in the future if these are required for further system flexibility.

Summary

The Custom Build option enables UK Link to be designed based on unique requirements, with all elements developed specifically for UK Link's business and technical needs.

Benefits

- Removes constraints of a standardised ERP off-the-shelf core
- Removes reliance on SAP licensing agreements
- Maximises system flexibility potential

Risks

- Limitations of existing documentation mean significant additional SME involvement may be required. This would be resource-intensive
- Risk of requirements being missed, leading to extended timelines and potentially missing the 2030 SAP deadline
- May require more time (design, build and test)
- Lack of Customer trust in a custom build system, leading to extensive Customer testing timelines at significant Customer cost
- High delivery risk with possibility of UK Link development failure
- Existing test automation may have limited suitability for reuse
- Large change management impact
- Risk of replicating like-for-like functionality of UK Link today, rather than building a future-fit system
- Risk to Customer impact may increase
- Risk of ongoing maintenance needs, and reliance on delivery partner/s to maintain the bespoke system
- Despite favourable run costs, benefits could be eliminated by increased costs caused by potential delayed delivery or delivery failure

5.3.3 SAP Option

This option proposes the upgrade of existing SAP components to their equivalents sourced from SAP's current product offering.

Option overview:

- UK Link Core will be migrated to SAP S/4HANA.
- UK Link Data Layer and Integration Layer out-of-service SAP components will be upgraded or replaced with new SAP components.
- Microservices will reduce core customisations over time for future system flexibility.

Securing the SAP Core (Relevant to Both SAP and SAP Hybrid Options)

Based on the results of the Solution Definition project, we consider an SAP S/4HANA Brownfield migration to be the preferred pathway for the SAP option for Project Trident. This SAP Brownfield migration approach will enable UK Link Core to retain the existing SAP customisation, providing a more assured migration path. Whilst SAP offers a full cloud-based software-as-a-service (SaaS) solution, we currently have a customised SAP ECC6 IS-U Core, supporting UK market processes, which is not a direct fit with the SaaS solution. Therefore, the core of the SAP option is based on SAP for Utilities Private Cloud Edition. Carrying over the complex core customisations into SAP S/4HANA for Utilities is preferable to an SAP Greenfield S/4HANA migration pathway. Implementing an SAP Greenfield delivery pathway would necessitate eliminating customisations from the core system.

Given the complexity of our existing SAP Core, this approach could introduce significant risks such as SME resourcing, as well as documentation and process mapping challenges, that could affect the project's ability to successfully complete an SAP Greenfield migration.

Based on the insight we have received from experts, the S/4HANA product architecture meets our business needs for support, flexibility and scalability. The benefits of S/4HANA for Utilities are:

- preserves our existing intellectual property (IP) investment within UK Link
- provides access to industry-specific upgrades as part of the Utilities package
- quicker response and batch execution times (20% quicker than SAP ECC6 processing)
- enables the possibility of future APIs
- enables capturing of calorific value (CV) at device level, aligning with potential future dependency on blending of gasses in the network.

In summary, an SAP Brownfield migration from SAP ECC6 to SAP S/4HANA for Utilities, aided by migration tooling such as smartShift and SNP CrystalBridge, is the proposal for the SAP option solution for the UK Link Core. In addition, the UK Link Core, Data Layer and Integration Layer SAP components at end of serviceable life will be replaced with SAP components. The table below outlines the full UK Link SAP component option.

SAP Components Proposed for Upgrade and Replacement

Table 5: SAP Component Proposed Replacements

Existing component	Target SAP component replacement
SAP ECC for Utilities	SAP S/4HANA for Utilities
SAP PO	SAP IS (BTP)
SAP BO/BI	SAP Business Intelligence/SAP SAC
SAP Data Services	SAP Data Services
SAP BW	SAP BW4HANA/SAP Datasphere (BDC)
SAP GRC	Incorporate into SAP S/4HANA
SAP NetWeaver	Replace application server for MarketFlow
SAP Solution Manager	SAP CALM

Whilst there are essential changes to consider as part of the SAP option, there will also be an impact on other systems within the CDSP estate which require integration with UK Link. These systems will need to be reviewed to establish configuration to the future UK Link system. There will need to be assurances that the dependencies between systems within the CDSP estate remain integrated after go-live and operate as they do today, providing the like-for-like functionality of UK Link that Project Trident has committed to.

Option to Deliver Future Flexibility for UK Link

Microservices are relevant to the SAP option, as this is the approach to clean up our SAP customisations over time. This option allows us to follow the technology strategy of reducing our reliance on the SAP Core by removing customised code. We need the microservices to support us in meeting future industry requirements, particularly relating to CV calculations and increased data volumes which will come with future industry change requirements. Once we have a better understanding of the microservices required, we will build these in line with what the industry needs are at the time.

Summary

The SAP option considerations:

- The UK Link Core migration will follow an SAP Brownfield approach, retaining existing SAP customisations during the transition from SAP ECC IS-U to SAP S/4HANA for Utilities.
- This method is considered less risky than an SAP Greenfield migration, which would require removing current customisations and would present significant delivery challenges due to system complexity.
- The migration approach leverages SAP S/4HANA for Utilities, ensuring continuity for UK market processes.
- Tooling from smartShift and SNP CrystalBridge will facilitate the migration by converting customised code to be compatible with S/4HANA, further reducing risk and cutover NZDT.
- Consequential changes will impact other CDSP system landscape integrated components, which will necessitate reconfiguration and testing to ensure continued like-for-like functionality after migration.
- The strategy includes the use of microservices to gradually remove custom code from the SAP Core over time, enabling flexibility to meet future industry requirements. This will facilitate modernisation of the system architecture while supporting ongoing and future industry needs.

Benefits

- Preserves our existing investment in UK Link SAP IP
- Tools are available to support a smooth migration pathway
- Support and stability for UK Link
- Cost and commercial negotiation benefits: we can secure a discount based on going 'all in' with SAP
- SAP is an industry-recognised product that is used by multiple industry participants
- SAP trial migrations have been a success
- Community support and implementation partnerships are easier to find
- Minimises potential business and industry Customer disruption
- Existing investment in test automation can be leveraged
- Limited retraining required for operational resources
- Has capability to deliver future flexibility requirements
- Provides enough system flexibility to enable UK Link functionality to 2040

Risks

- Platform vendor lock-in
- Commercial proposal dependency
- Notionally integrates but may not be best technology option
- Loss of commercial tension
- Not enough cloud elasticity
- Requires skilled resources
- Licensing and hosting constraints

5.3.4 SAP Hybrid Option

This option allows us to ensure we can secure UK Link on a supported platform, with minimised delivery risk, but also allows for optionality in selecting SAP component replacements outside the SAP S/4HANA for Utilities Core.

Option overview:

- UK Link Core will be migrated to SAP S/4HANA.
- UK Link Data Layer and Integration Layer out-of-service SAP components will be either upgraded, or replaced with new SAP components or third-party components – following an assessment of the product which best meets UK Link requirements.
- Microservices will reduce core customisations over time to promote future system flexibility.

The SAP Hybrid option delivers the following:

1. **Retain the existing SAP Core:** Complete an SAP ECC6 IS-U Core migration to SAP S/4HANA to secure seamless UK Link functionality and invest in microservices for future flexibility as described in section 5.3.3 for the SAP option.
2. **Enable optionality in design (hybrid enablement):** For the remaining SAP components nearing end of serviceable life, which are in the scope of Project Trident, there is optionality to choose replacements from third-party providers, which are in scope of Project Trident. This avoids platform vendor lock-in and promotes architectural design ingenuity.

   This description of SAP Hybrid has evolved from our description of 'Hybrid' within the SOC. The SOC description was effectively a derivative of the Custom Build option, rather than a true Hybrid option. The further-developed description allows us to retain the benefits of an SAP Core for UK Link but enables architectural licence for optionality of other components within UK Link and the advantages this offers. The Architecture team has developed a set of criteria (see Appendix 5) to support selection of SAP component replacements that are right for UK Link. This evaluation includes technical fit, value for money, future flexibility requirements and ability to provide functionality until 2040.

Summary

The SAP Hybrid option considerations:

- Security of a supported UK Link SAP Core.
- Tooling from smartShift and SNP CrystalBridge will facilitate the migration by converting customised code to be compatible with S/4HANA, further reducing risk.
- A de-risked SAP Brownfield migration of our existing SAP Core customisations.
- Delivers the flexibility requirement through moving to a clean core with investment in microservices.
- Optionality in replacement of the remaining in-scope UK Link SAP components for integration and reporting.
- Provides enough flexibility to take us to 2040.
- Avoids platform vendor lock-in and the risks associated with this.

Benefits

- Preserves existing Xoserve investment in SAP Core
- Potential to avoid platform vendor lock-in
- Tools available to support migration to S/4HANA
- Optionality allows for a system that can incorporate Xoserve's architecture principles, align with its technology strategy roadmap and enable optionality in how the UK Link system of the future is built and run
- Aligns with flexibility requirement
- Enables a more flexible data platform and simplifies data sharing with Customers
- Leverages SAP's strengths while addressing gaps
- Can integrate emerging technologies
- Existing investment in test automation can be leveraged
- Limited retraining required for operational resources
- Facilitates commercial tension and innovation

Risks

- Commercial proposal dependency
- May result in multiple licences and product vendors, which may be difficult to manage and become costly
- Custom components may complicate upgrades or support needs
- Potential for more rigorous testing needed for non-SAP elements
- Potential impact on Customers if we choose non-SAP component replacements

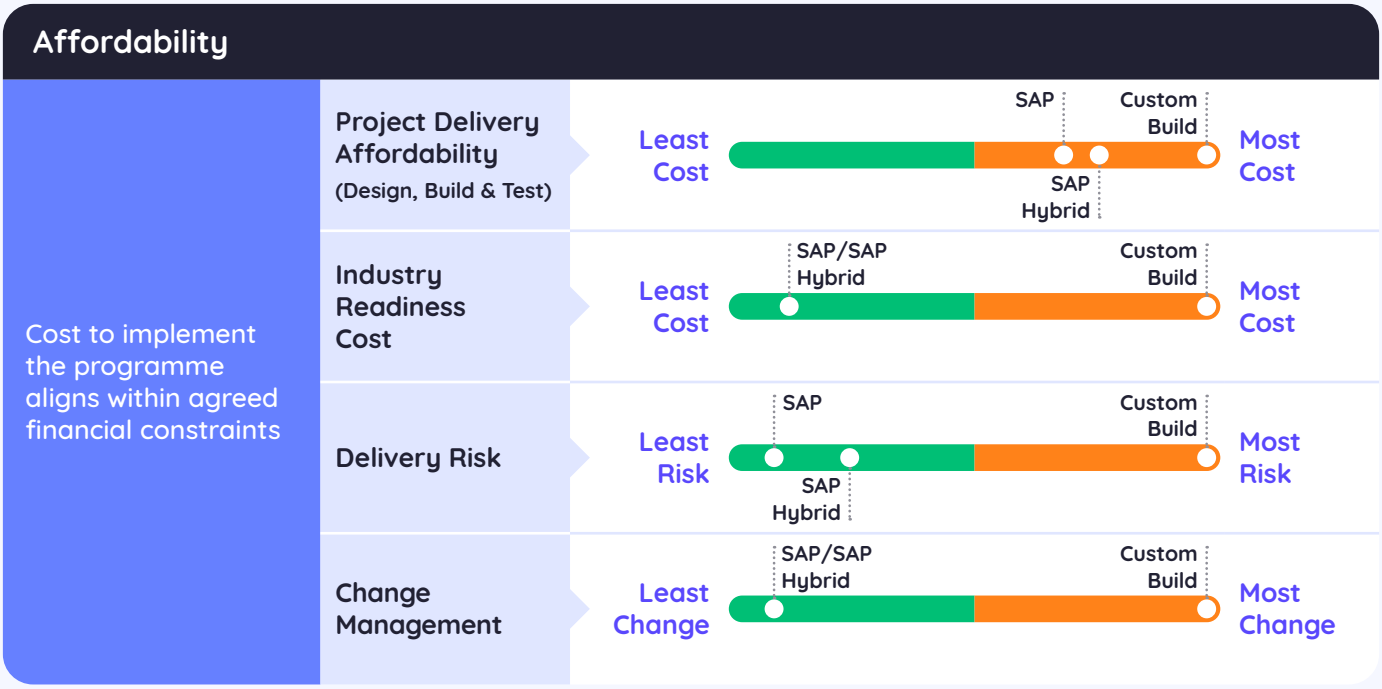
5.3.5 CSF Assessment Deep Dive

A detailed assessment of the shortlist options has been conducted using the CSFs, evaluating affordability, value for money, strategic fit, capability and achievability. The analysis highlights each option's strengths and challenges, comparing their alignment on a green-to-amber sliding scale of most favourable to least favourable. All options meet the high-level criteria, so this comparison clarifies differences among the shortlisted choices.

Affordability

We have considered the project delivery affordability using the Project Trident cost envelope (£110m) referenced in the Financial Case (section 7.2.1) as a base. Our Finance team led a cost analysis of project delivery, using preliminary estimates focussed on the design, build and test stages. We considered the necessary resources and effort, projected timelines, and platform expenses like hosting environments during construction, to form a comprehensive affordability assessment. The estimated costs are based on our best understanding at this time and have not been market-tested. As we progress with our procurement and commercial discussions, we will be able to gain a more accurate cost prediction based on confirmed costs. Also considered is the information provided in the Solution Definition and Custom Build reports, and gleaned from expert insight. The cost analysis indicates that each option fits within the Project Trident cost envelope and is therefore affordable. However, Custom Build is assessed as more expensive to deliver than the other, SAP-based, options (see table below). In addition to the delivery costs, we have taken a considered view of delivery risk, in terms of potential for project overrun, potential costs for alignment with Customer systems, change management through upskilling, and training costs. The assessment identifies that the SAP-based options are more affordable for Project Trident.

Figure 5: Affordability CSF Assessment

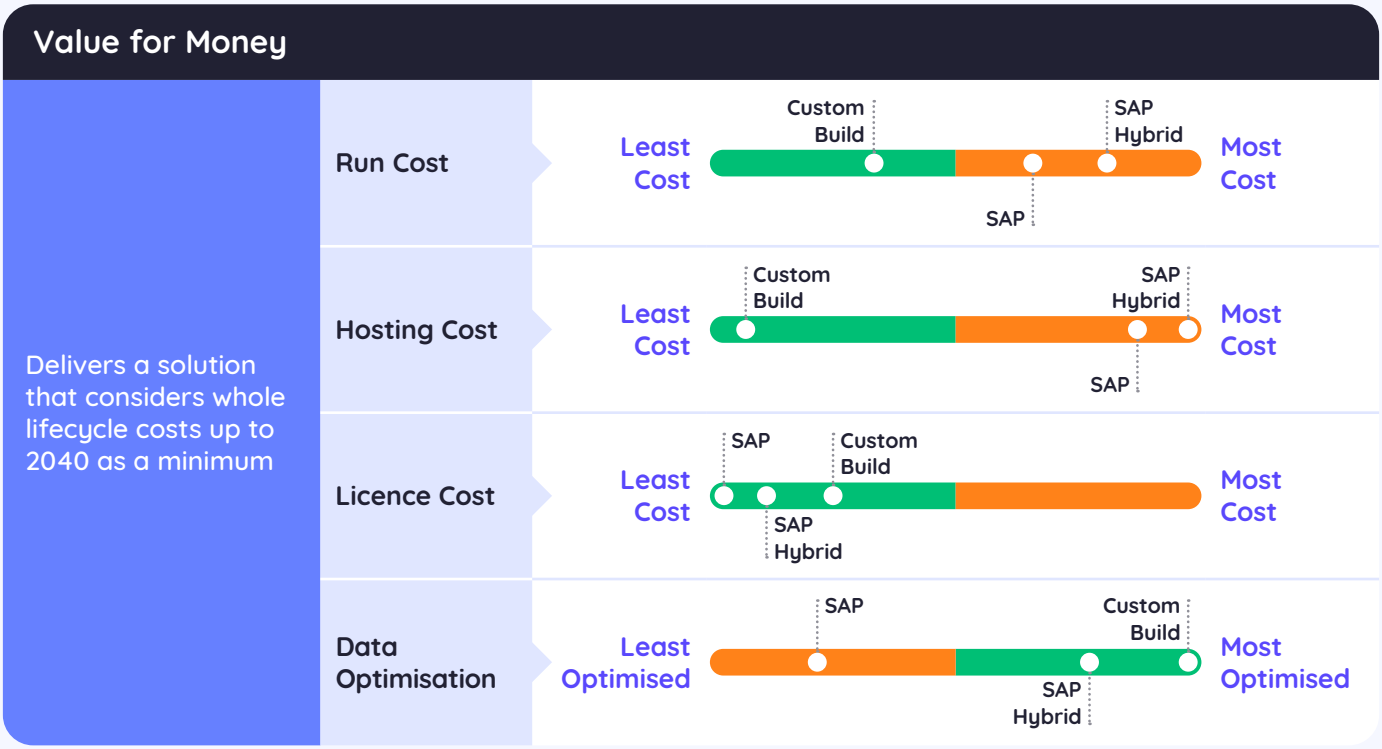


Value for Money

Each option satisfies value-for-money criteria overall. However, there is differentiation between the Custom Build and SAP-based options which indicates a swing between run, hosting and licence costs. Our Finance team have completed thorough Net Present Value (NPV) and Total Cost of Ownership (TCO) up to 2040 analysis, using the estimated cost information which underpins this analysis. These costs have been informed by our Solution Definition report, SAP insight and the Custom Build reports.

However, it is important to note that these costs have not been market-tested and will require such testing to move from high- level estimates to more informed certainty on TCO, which we will confirm in the Full Business Case (FBC). In addition to this, from our architecture discovery work we have established that how we store and manage our data has an impact on our costs. Therefore, we have considered the potential for optimising our data management within UK Link for each of the options.

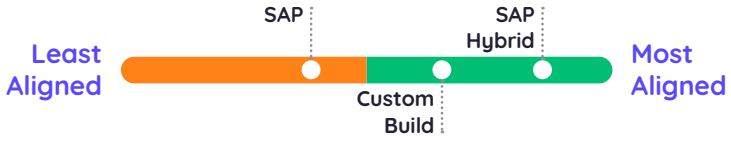
Figure 6: VFM CSF Assessment



Strategic Fit

As stated in the Strategic Case (sections 4.1.3, 4.1.4 and 4.1.1), we have considered the need to support the industry change requirements for support and the need for future flexibility in UK Link. The technology strategy directly addresses the future flexibility requirements and how best to move to a modular architecture. The wider organisational strategy focusses on delivering a reliable, simplified and change-ready CDSP platform ecosystem. The Architecture team have assessed each option as being in line with strategy, but have identified the SAP Hybrid option as being most closely aligned.

Figure 7: Strategic Fit CSF Assessment

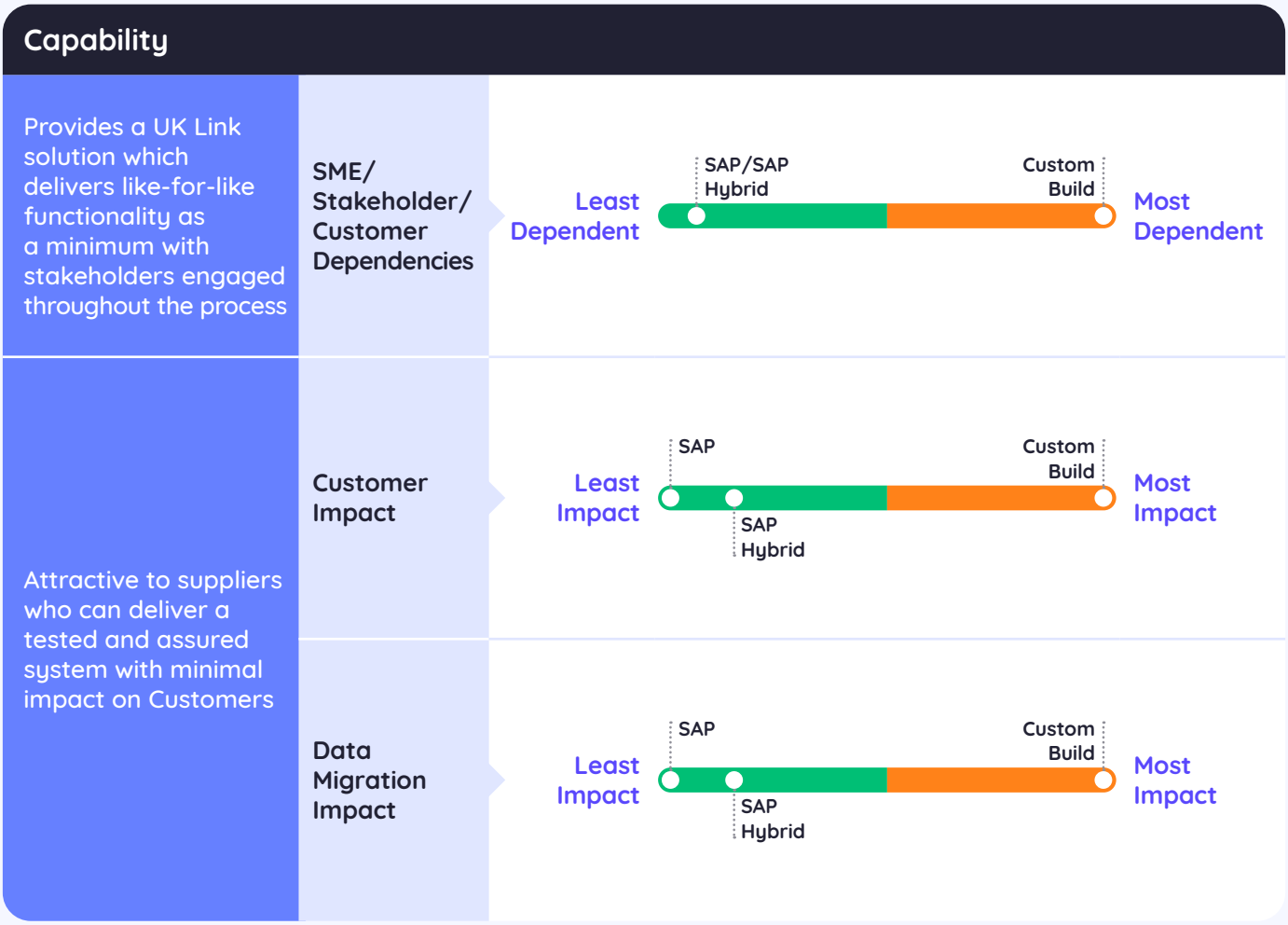
Strategic Fit		
The programme must align with Xoserve's corporate objectives and strategy whilst supporting industry regulatory objectives	Technology Strategy Alignment	
	Xoserve Strategy Alignment	
Aligned with the industry and regulatory need for adaptability and flexibility of UK Link	Industry Change Alignment	

Capability

Within the Strategic Case (section 4.3.1) we discuss the Project Trident business needs, stating how we will ensure focus on these needs. These are driven by the capability requirement to deliver a UK Link which aligns with what Customers and the industry need. It is acknowledged that as we diverge further from our current architecture, our reliance on SMEs and Customers will increase, to ensure the development and delivery of a UK Link solution that aligns with our requirements.

As the SAP-based options are most similar to today's architecture, they will require less SME and Customer intervention. Based on our analysis of the Custom Build option, our understanding is that this option would require complete renewal of the architecture underpinning UK Link. This would lead to more reliance on Customers, and more impact on Customers during the data migration phase as we configure each one's exact requirements. This could lead to a high demand for resource which could impact delivery success.

Figure 8: Capability CSF Assessment



Achievability

This includes assessment of the practical feasibility of delivering each option within the required timescales and resource constraints. All options are considered achievable, but Custom Build indicates greater implementation complexity and dependency on external expertise, which is likely to introduce risk and affect migration timelines. To ensure all options are sufficiently secure, we reviewed information in the Solution Definition and Custom Build reports. Finally, we assessed to confirm that all the options are commercially viable – with the SAP-based options being most viable for procurement.

Figure 9: Achievability CSF Assessment

Achievability		
The programme must be deliverable by 2030 with low implementation and cutover risk, using proven methods and technologies	Cut over and Migration Risk	
Be well supported to reduce risks to security, availability and integrity of data	Security	
The programme must be commercially deliverable through competitive procurement with balanced risk transfer	Commercially Viable	

Summary of Assessment Scoring (1 = Least Favourable, 10 = Most Favourable)

Table 6: CSF Assessment Summary

CSF Category	CSF	CSF Specific Criteria	SAP	SAP Hybrid	Custom
Affordability	Cost to implement the programme fits within agreed financial constraints	Project Delivery Affordability (Design, Build & Test)	4	3	1
		Industry Readiness Cost	8	8	1
		Delivery Risk	9	7	1
		Change Management	9	9	1
Value for Money	Delivers a solution that considers whole lifecycle costs up to 2040 as a minimum	Run Cost	4	3	6
		Hosting Cost	4	3	9
		Licence Cost	10	9	8
		Data Optimisation	3	7	10
Strategic Fit	The programme must align with Xoserve's corporate objectives and strategy whilst supporting industry regulatory objectives	Technology Strategy Alignment	5	7	2
		Xoserve Strategy Alignment	5	10	1
	Aligned with the industry and regulatory need for adaptability and flexibility of UK Link	Industry Change Alignment	4	7	6
Capability	Provides a UK Link solution which delivers like-for-like functionality as a minimum with stakeholders engaged throughout the process	SME/Stakeholder/Customer Dependencies	8	8	1
	Attractive to suppliers, who can deliver a tested and assured system with minimal impact on Customers	Customer Impact	10	8	1
		Data Migration Impact	10	8	1
Achievability	The programme must be deliverable by 2030 with low implementation and cutover risk, using proven methods and technologies	Cutover and Migration Risk	8	7	1
	Be well supported to reduce risks to security, availability and integrity of data	Security	10	10	10
	The programme must be commercially deliverable through competitive procurement, with balanced risk transfer	Commercial Viability	10	10	5
Totals			**121**	**124**	**65**

The CSF assessment scoring identified SAP Hybrid as the highest scoring option. The below information provides an overview of the rationale for the scores awarded.

Custom Build Option

- Lowest CSF score at 65, reflecting reduced affordability, strategic fit, capability and achievability compared to SAP-based options.
- Least affordable, with higher delivery and run costs, a greater risk of project overrun and increased change management expenses.
- While potentially offering the most optimised data management, this comes at a significantly higher cost and risk profile.
- Lowest alignment with strategic objectives, both organisational and industry-related, due to divergence from current architecture and greater reliance on bespoke solutions.
- Heavily dependent on SME and Customer engagement for requirements and delivery, increasing resource demand and potential for Customer impact during migration.
- Most complex to implement, with higher risk from external dependencies and migration, though security remains strong.

SAP Option

- Scored 121 points, reflecting strong overall performance, particularly in affordability, capability and achievability.
- Strongest in affordability, with lower delivery, change management and delivery risk costs, fitting well within the Project Trident cost envelope.
- Delivers high value for money with lower run, hosting and licence costs, though data management is not as optimised as in the SAP Hybrid or Custom Build options.
- Strategically aligned with the organisation's technology and corporate objectives, though less so than the SAP Hybrid option.
- Requires minimal SME and Customer intervention due to similarity with the current architecture, reducing implementation risk and Customer impact.
- Highly achievable, with low cutover and migration risk, and strong security and commercial viability.

SAP Hybrid Option

- Highest overall CSF score at 124 points, driven by best alignment with strategic, capability and value-for-money criteria.
- Balances affordability and capability, with slightly higher delivery costs but still within the project envelope.
- Offers optimised data management, resulting in improved value for money in total cost of ownership and lifecycle costs up to 2040.
- Most closely aligned with both the technology strategy and Xoserve's corporate objectives, as well as future industry change and regulatory needs.
- Requires minimal SME and Customer dependency, ensuring efficient delivery and reduced impact on Customers and data migration.
- Achievable within required timescales and resources, with robust security and commercial viability.

5.4 The Preferred Option: SAP Hybrid

We have considered all the information collated from our market engagement, expert partnerships, commissioned reports and detailed analysis and have established that SAP Hybrid is the preferred option to take forward in the business case. However, while this is currently the preferred option and we expect it to become the Project Trident solution in the FBC, future advancement will depend on additional clarification and external validation as the business case develops. If at any point we establish information that renders this option technically, commercially or financially unviable, we will revisit our shortlist to establish a revised approach for Project Trident moving forward.

These are the key differentiators which have enabled us to confirm the preferred option is SAP Hybrid:

- avoids platform vendor lock-in
- enables optionality in SAP component replacement (e.g. in integration and reporting areas), ensuring the best product can be selected for our requirements
- most data-optimised
- most aligned with technical and organisational strategies
- most aligned with future industry change
- least dependent on SMEs
- most commercially viable.

An overview of the down-selection of the shortlist to the preferred option, in the order that the options have been down-selected, is below.

Custom Build

Given our current information, this option was not selected as the preferred option because of:

- elevated risk to Project Trident delivery
- additional industry testing required
- critical reliance on SME input
- overall risk to the UK Link platform and wider CDSP ecosystem.

The risk to delivery and wider CDSP estate were deemed too high to establish Custom Build as the preferred option. Whilst Custom Build is favourable in TCO costs, we have not had enough assurance that it is possible to build a fully customised UK Link which will deliver like-for-like functionality to enable us to select this option as preferred.

SAP

Whilst the SAP option provides the required security, with an upgraded SAP S/4HANA core and flexibility for the future UK Link through microservices optionality, it has not been selected as the preferred option. The option presents a risk of lock-in with a single platform vendor for the UK Link platform, which is likely to become a problem as we will become dependent on a single supplier's technology, pricing, strategic roadmap, and operating model. This consideration makes the option least aligned to our future technology roadmap and strategic technical architecture principles.

SAP Hybrid

This option has been selected as the preferred option, as it provides UK Link stability and flexibility for the future, similarly to the SAP option. The SAP Hybrid decision differentiators are:

- optionality of integration and data components that are currently SAP with more appropriate component based on a suitability assessment
- supports a move away from a single supplier, and the platform vendor lock-in risks associated with this
- enables access to new technologies
- enables commercial leverage where there is optionality.

By choosing SAP Hybrid as our preferred option, we can retain our existing IP whilst keeping our options open. We can dedicate time to thoroughly assess what requirement we have for UK Link components and select the most appropriate solution for those requirements. If we assess the options for each component and an SAP product materialises as the best fit for UK Link, this will be selected as the right solution for the UK Link estate.

Preferred Option for Customer Engagement

In line with our commitment to updating our Customers as Project Trident decisions are made, we engaged the DSC Contract Managers on behalf of industry Customers directly by email on 8 December 2025.[27] The email contained an information pack informing Customers that SAP Hybrid has been selected as the preferred option, following detailed assessment. We provided insight into the assessment criteria, decision-making process and outcomes.

We confirmed that the decision is conditional on us competitively testing the market and remains subject to change until we confirm the Project Trident solution in the FBC. We confirmed that if, through further analysis and negotiation with potential delivery partners in 2026, the preferred option is not deemed to be affordable, deliverable at an acceptable risk, or able to give Customers value for money, we will revert to an alternative option that better meets the needs of the project, our Customers, and the industry. This confirmation was then followed up with a confidential Customer briefing on 18 December 2025 where more details of the analysis were shared and DSC Contract Managers were invited to ask questions and seek clarifications.

5.5 Summary

The evaluation of options for the UK Link platform considered Custom Build, SAP and SAP Hybrid solutions. Custom Build was ruled out due to significant delivery risks and the potential impact on the wider CDSP ecosystem, despite favourable operational costs. The SAP option offered security and future flexibility but was not chosen because of the risk of platform vendor lock-in, which conflicts with our strategic technology principles.

Both the SAP and SAP Hybrid options can utilise automated tooling to support migration and reduce impact on Customers. Ultimately, SAP Hybrid was selected as the preferred option for its stability, modularity and avoidance of platform vendor lock-in. This aligns with our architecture technology roadmap and supports both flexibility and component optionality for future modernisation.

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6. Commercial Case

The Commercial Case presents our market engagement progress and commercial strategy to find the right partners to deliver the requirements of the project.

To support this, we have developed a commercial model and procurement approach that we will use to select and govern our chosen vendors. The Commercial Case outlines the core principles of our commercial model, the approach we are taking to engage the market, and how we will optimise our ecosystem – with appropriate risk transfer to vendors – to achieve a value-for-money procurement for Project Trident Customers.

We are proposing two procurements:

- A Core Services Partner to implement our Trident preferred option.
- A Transformation Partner to provide technical and test assurance over the work of our Core Services Partner, and to ensure that Project Trident is aligned with, not siloed from, our wider organisation programmes and projects.

Ultimately, we aim to achieve a model that balances price, quality, delivery risk and contractual agility to evolve as we go through the lifetime of this contract (expected to be to 2040).

We have been working with the market to test the appetite for this type of work. Through our market engagement exercise in December 2024, and subsequent market interactions, we are confident there is significant market interest in partnering with us to ensure the best outcome for our Customers.

In summary

- **The Commercial strategy has been designed to select optimal delivery partners for Project Trident.**
- **Procurement approach incorporates a Core Services Partner and a Transformation Partner.**
- **Contractual model aims to balance price, quality, risk and flexibility over the long term.**
- **Market engagement confirms robust vendor interest in partnership opportunities.**

6.1 Market Engagement Activity

As referenced in the Economic Case (section 5.4), in December 2024 we engaged the market to gain participants' perspective on the six Economic Case options set out in the Project Trident Strategic Outline Case (SOC), as well as a broader perspective on indicative timelines and delivery approaches. This was done via a fair procurement notice on the Delta e-Sourcing portal to ensure that this was available to a wide range of IT vendors.

Twenty-two organisations registered for the Project Trident market engagement event, and we received 17 responses to our questionnaire. Vendors endorsed our six options, identifying no other alternatives, and gave useful perspectives on the relative merits of these options, which allowed us to refine our Economic Case options. The market engagement outcome was reported in the January 2025 edition of **The Tide** newsletter[28] and in a February 2025 Customer briefing and Q&A session.[29]

After our initial market engagement activity in December 2024, we identified 13 Tier 1 Global Service Integrators for further briefings on Project Trident based on research materials from specialist sources including Gartner, Forrester, Crown Commercial supplier research, the SAP Partner directory, Everest Group and the original Xoserve market engagement. These meetings have reassured us that the market can meet our requirements for delivery of the preferred option, and that the market has a clear intent to bid for these services. We have also used these meetings to test and refine our commercial model.

6.2 Commercial Strategy

The commercial strategy has been set based on:

- target solution and operating model
- analysis of pain points in our current commercial arrangements
- what we have learned and tested with potential vendors in the market.

Xoserve is not considered a body captured under the 2023 Procurement Act. However, our obligations under the UNC means we intend to operate a competitive procurement following industry best practice. We are ensuring all prospective vendors on our longlist have the same briefing and materials, to ensure a level playing field.

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6.2.1 The Commercial Model

We have developed a series of commercial principles to underpin our Project Trident commercial activity:

Table 7: Commercial Principles

Principle	Commercial Model Goal
Transformation Partner	Xoserve will be seeking a strategic relationship with key vendors.
Solution ownership	Xoserve will own the design and requirements of the new UK Link solution.
Transparency	Xoserve will have full operational and financial transparency, through: • Open-book accounting: financial transparency on the cost to serve • Open book management: the source code, data, systems and processes used to run the service will be on a shared access site (i.e. SharePoint), available to Xoserve.
No implementation partner vendor lock-in	Xoserve requires the intellectual property rights to support a continuous and uninterrupted service upon exit of the contract, either to insource the solution or to transfer to another third-party provider.
Improved performance	Xoserve will have the requisite performance measures to drive an optimal performance, including the ability to take the service away from poorly performing vendors and re-tender services to the market in a controlled and fluid way.
Cost reduction	Xoserve should aspire to reduce the cost to serve through the procurement, delivering a programme of automation and efficiency. The contract will also contain sufficient value-for-money provisions to drive value over the lifetime of the contract.
Modernised architecture and revised commercials	The new UK Link technical platform, as defined in the Economic Case (microservices and third-party components) will facilitate quicker change.
Master Service Agreements (MSAs)	Xoserve will upgrade its contractual terms through MSAs that are in line with best market practice.
Innovation	Xoserve will have unconstrained commercial flexibility to introduce the best capabilities of the market to its ongoing maintenance and enhancement programme.

6.3 Project Trident Procurements

6.3.1 Procurement Approach

We will run two procurements to acquire the two partner organisations required:

1. **Transformation Partner** to provide technical and test assurance over the work of our Core Services Partner, and to ensure that Project Trident is embedded within our evolving programmes and projects to ensure alignment to future direction.
2. **Core Services Partner** to implement our preferred option as described in the Economic Case.

Each of these procurement exercises will take the form of a Pre-Qualification Questionnaire (PQQ) followed by a Request for Proposal (RFP) and will have multiple lots which will result in packages of work governed by MSAs and Statements of Work (SOW). We anticipate appointing no more than two vendors across the lots but will reserve the right to award contracts to more or fewer providers should it be deemed most beneficial to do so following the procurement.

We are following this approach to enable us to be an intelligent Customer and ensure Project Trident integrates with the whole of the CDSP technical landscape, as expected.

6.3.2 RFP Approach

As there will be two procurements, we will require two RFPs.

RFP1: Selection of a Transformation Partner as described in the Strategic Case (section 4.1.5). The Transformation Partner will act as service integrator, providing a single point of accountability for the various vendors in our ecosystem, including providing appropriate technical and test assurance over the work of other vendor(s). The Transformation Partner will also be required to be a bridge between our new and ongoing Xoserve programmes and projects and Project Trident. They will need to deliver a strong integration between Project Trident and those wider initiatives, ensuring we avoid becoming siloed.

Required Capability (SOW)

Project Trident Systems and Service Integration (SSI)

The Project Trident SSI will provide System Integration and Management (SIAM) capabilities to support the integration of Project Trident within our target operating model.

Technical and Test Assurance

The technical and test assurance capability will provide enduring design and test assurance of the work performed by the Core Services Partner. This work is distinct from the ongoing project delivery assurance to be provided by PwC.

Transformation Office

This office will help Xoserve to define its internal functions, systems, processes and planning, supporting the creation of a target operating model.

We expect the successful vendor appointed under this RFP to be awarded a contract for the duration of Project Trident (until 2031), subject to satisfactory performance, and then transition to ongoing support as the Service and System integrator until 2040 as per RFP2 (Core Services Partner).

RFP2: Selection of a Core Services Partner to lead on the design, build, test, migrate and IT outsourcing (ITO) run of the preferred option as outlined in our Economic Case (see section 5.4). This also includes establishment of core infrastructure, initial migration of UK Link from the SAP ECC6 IS-U instance to S/4HANA IS-U, ongoing support and maintenance, and enhancement of the platform going forward.

Required Capability (SOW)

Design, Build, Test, Migrate (DBTM)

Deliver the migration of UK Link from the SAP ECC6 IS-U instance to a new SAP S/4HANA platform, as well as addressing other end-of-life components as described in the Strategic Case scope (section 4.4).

ITO Run

Defect/incident resolution, ongoing maintenance and environment management (patching, back-ups, performance management of the solution, training) as well as a series of planned functional releases based on a prioritised Project Trident backlog that will be developed during the DBTM phase. This backlog will consist of 'business-as-usual' industry change, identified pain points, and other recommended Trident improvements.

The ITO Run lot is also likely to include procurement of appropriate hosting infrastructure and licences, though we will retain the right to procure these directly if we believe this can achieve better pricing.

Evolve

Deliver agreed architectural improvements, including deployment of selected components/microservices/ architectural improvements as well as items prioritised from the Project Trident backlog, as capacity is available.

We expect the successful vendor appointed under this RFP to be involved for the duration of Project Trident (until 2031), subject to satisfactory performance, and then transition to become the enduring UK Link run partner until 2040.

We expect to provide appropriate breakpoints both within capabilities (e.g. the ITO run will be a c.10-year deal so will have breakpoints within that) and between SOWs (e.g. if a vendor underperforms in any of the design, build, test or migrate stages, they may not receive further SOWs).

It is our intention to have the Transformation Partner on board in advance of awarding the contract for the Core Services Partner as that will support us in its management and governance of the Core Services Partner. It is possible that the same bidder wins both RFPs, in which case the technical and test assurance work will be re-tendered to an alternative provider.

6.3.3 Procurement Process

In addition to the 13 identified Tier 1 Global Service Integrators, we will also publish a Procurement Notice announcing our intent to procure Project Trident services. This will be published on the Delta e-Sourcing portal as well as the Xoserve website; any vendors who qualify an interest in participating in the Trident procurement will receive a briefing to bring their knowledge to the same level as the 13 Tier 1 Global Service Integrators; and, assuming they confirm interest in bidding, they will be included in the longlist of vendors to receive copies of tender documentation.

For each of the two procurements, we will run a two-stage process comprising an initial PQQ followed by an RFP. The PQQ stage will be used to derive a shortlist of qualified and capable bidders to receive the RFP, using weighted scoring mechanisms at each down-select stage. The use of a weighted scoring mechanism balances quality and price, ensuring that the best solution – one which de-risks our proposals – will win, assuming the price remains acceptable.

We will apply the following bidder rules to the Project Trident procurement:

- Bidders are encouraged to compete for both RFPs. Xoserve will let the market inform it of the correct commercial model through effective competition.
- We will reserve the right to remove a highest scoring bidder from RFP1 if they are also the highest scoring bidder in RFP2, and vice versa.
- We reserve the right to award all, none or some of the SOWs in each RFP. If the Transformation Partner and the Core Services Partner are the same, we will remove the Test Assurance SOW from the Transformation Provider RFP and re-procure that SOW separately.
- We welcome consortia, though this approach will need to be declared in the PQQ.
- We reserve the right to mandate working arrangements with third-party specialists, with costs passed through without mark-up.
- Runner-up bidders in RFP1 and RFP2 must keep their offer and price valid for 12 months from Best and Final Offer (BAFO). They will also agree a working MSA with Xoserve.
- Bidders will not be entitled to recover bid costs.

6.3.4 Procurement Stages

PQQ: The PQQ stage provides information which allows us to assess interested bidders' suitability, capability and eligibility to provide the type of services being procured under this competition. Questions are based on:

- a bidder's bidding entity (e.g. company/ financial information)
- its most recent technical and operational experience.

The PQQ is designed to provide us with sufficient information on bidders to allow a shortlisting of suitable organisations to the next phase of the competition. We expect to invite a minimum of three bidders to receive each full RFP. As we may shortlist the same bidders for both RFPs, we expect a minimum of three and a maximum of six bidders in total across the two RFPs.

RFP: Organisations shortlisted to receive an RFP will be expected to respond to a range of questions that establish the high-level artefacts that they will need to produce for the contracted delivery services. The market will be sent a range of data and documents that set out our ask, and contextualise the technical and operational framework within which we deliver our services.

Bidders should respond to our requirements and outline their proposals in the form of document sets. They will also be expected to submit initial pricing.

Weighted scorecards will be used to score submissions, with a reduced number of bidders for each RFP taken forward to the second stage of the RFP process. This stage will scrutinise and shape bidder solutions, progress contractual terms, and drive the commercial outcomes we need, with maximum commercial tension remaining in the procurement process:

- We will implement 'collaborative solutioning', which is akin to the 'competitive dialogue' process used in public sector procurements. Through a series of workshops with each of the remaining bidders, our functional leads will jointly discuss each bidder's proposals to enhance the quality of the bid in advance of the BAFO stage.
- The aim is not to give the market the answers, but to help shape the solutions offered through constructive feedback and pathway exploration, allowing for the technical and service communities on both sides to collaboratively develop bidder proposals.

At the BAFO stage, MSAs, SOWs and contract schedules will be finalised to allow contract signature and subsequent vendor mobilisation.

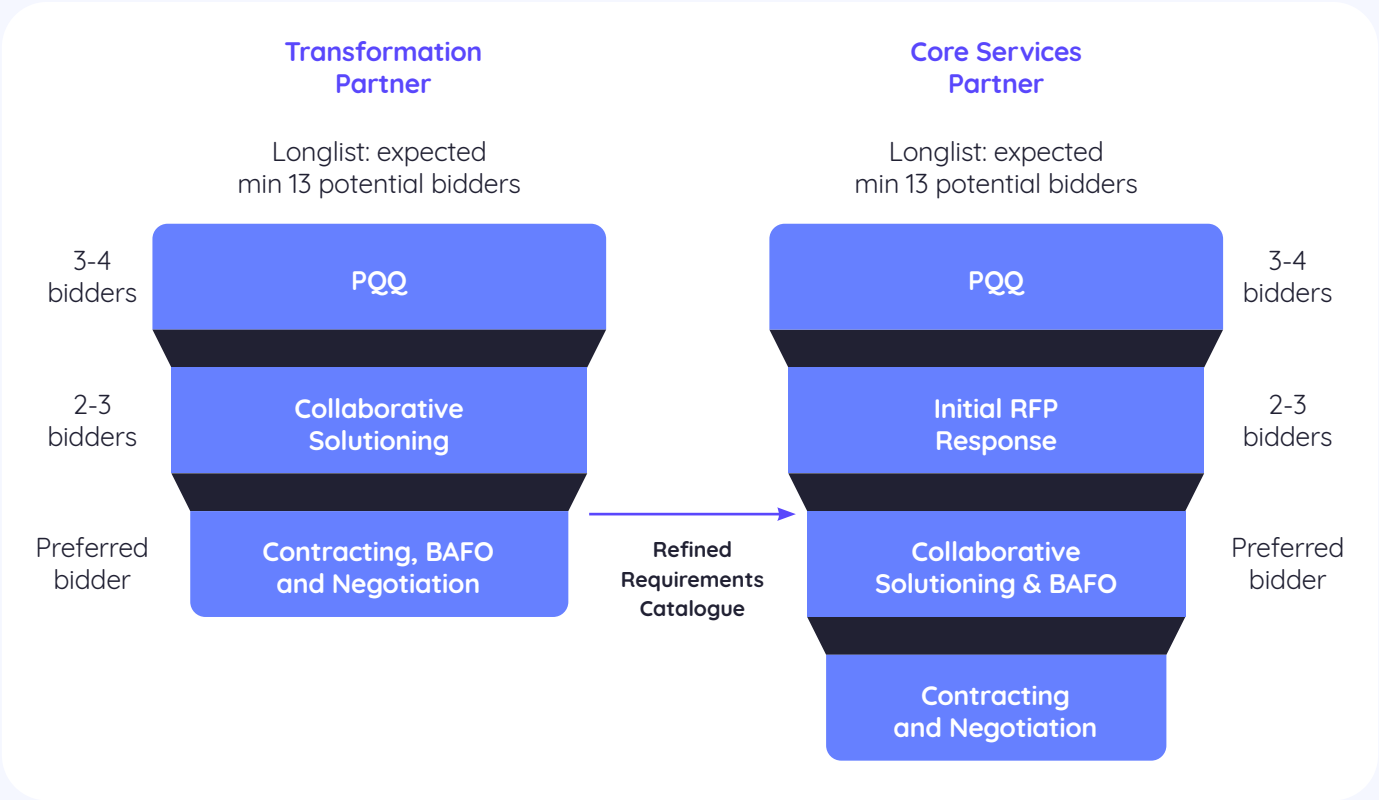
The final stage of the Project Trident procurement will consist of working with the preferred bidders to arrive at a point where signature-ready agreements can be approved by our stakeholders:

- During initial stages of the RFP process, negotiation of the MSAs and SOWs, and their respective schedules, will have progressed, forming the basis of each bidder's solutions and commercial offer.
- The contracting, BAFO, and negotiation phases will need to finalise these products into contract-ready documentation sets.
- There is no further evaluation required at this stage of the procurement.
- Once stable, the contracts can be issued for governance and stakeholder review.

Artefacts produced by the Transformation Partner will be used as collateral to support the RFP for the Core Services Partner contract; particularly the final set of functional and non-functional requirements.

The diagram below shows a summary view of the procurement strategy we are taking to deliver the Project Trident procurement.

Figure 10: Procurement Summary



6.3.5 Additional Commercial Considerations

Risk Transfer Arrangements

We will put in place risk transfer arrangements as part of the procurement process, to ensure an appropriate sharing of risks during the delivery phase between ourselves and successful bidders for both the Transformation Partner and Core Services Partner contracts.

We expect the allocation of risk to be based on the following principles:

- risk is allocated to the party best placed to manage it
- where no single party is best placed to manage it, the risk is shared, with clear allocation of responsibility.

The agreed position on risk will be formalised in a Vendor MSA.

UK Link Technical Information

Within the RFP documentation, we will provide full details of the Solution Definition reporting and outcomes of our trial migration (see section 5.2.2). This will include a detailed analysis of our code base from tools such as smartShift and SNP CrystalBridge, to ensure bidders have the best view of the existing UK Link platform. This work has been produced by an independent party to ensure a level playing field in relation to the learnings and outcomes.

7. Financial Case

The Financial Case has matured since the publication of the Strategic Outline Case (SOC) and now provides a more comprehensive view of the anticipated cost of Project Trident, aligned to the preferred option detailed in the Economic Case.

Project Trident has been set up on a solid foundation to control the financial elements of the project. We have a cost model for both the 'Build' and 'Run' portions of the Project Trident lifecycle, as well as a recommendation on how these costs will be recovered from our Customers. We recognise the risk factors in our model at an appropriate level of granularity and will seek to evolve these through our procurement activity. We will continue to iterate these costs as part of the broader Xoserve business planning process, with final costs captured in the Full Business Case (FBC).

Any financial benefits will be detailed in the FBC.

In summary

- **The Financial Case now gives a comprehensive overview of Project Trident's anticipated costs, with robust modelling for both the 'Build' and 'Run' phases and a plan for Customer cost recovery.**
- **A cost envelope of £110m has been confirmed for Project Trident as discussed in BP26.[30]**
- **Financial risks are recognised and will be refined throughout procurement; final costs and financial benefits will be detailed in the FBC.**

30 Xoserve BP26 Portal

7.1 Financial and Cost Modelling

Project Trident has invested in dedicated financial resource to create a cost model which will support and underpin the financial considerations for the project. This includes costs for the Economic Case shortlist options and a more detailed financial profile of the preferred option of SAP Hybrid (section 5.4).

The Finance team tracks project spend on an ongoing basis. These figures are reviewed monthly at the Project Trident Steering Committee. This finance-focussed activity has shaped the view of Project Trident expenditure for the duration of the project and whole life costs, within the remit of a solution that serves Xoserve's role as the CDSP, up to 2040. This modelling work will develop over the duration of the project, providing meaningful insights as the cost profile is clarified, e.g. through procurement.

7.2 Funding Requirements

7.2.1 Project Business Planning Process

As part of the business planning process, we identify high-level forecast costs to inform the cost profile of Project Trident across the business planning cycle years. The SOC included information for Business Plan 25 (BP25[31]) which includes financial information for the years April 2025 to March 2028. This enables the apportionment of the forecast costs across the expected project delivery timeframe. These costs are based on 2025 prices and, consistent with the usual BP process, the Consumer Price Index (CPI-H) measure for inflation will be applied in arriving at the Customer charges applicable for 2026/27. The costs taken into consideration include the costs to Xoserve to run Project Trident, third-party support, hosting, licensing and run costs.

31 Xoserve BP25 Final Version
32 Xoserve BP26 Final Draft

Based on cost analysis of the SAP Hybrid preferred option, the estimated expenditure for Project Trident for BP26 projections is up to £110m[32] in 2025 prices, which will take us to August 2031 for Project Trident delivery. This will be achieved through a 'longer and thinner' project compared to our view in BP25.

During the BP25 year, Project Trident was allocated £9.7m but we forecast this not to be fully utilised within BP25; any underspend will be carried forward, which is consistent with previous multi-year programmes' treatment of underspent funds.

The forward delivery plan is presented in the Management Case (section 8). Execution of our full procurement and the associated FBC will allow us to provide greater certainty on expected costs.

The BP26 submission is as follows:

Table 8: BP26 Project Trident Budget Submission

BP26	BP27	BP28
£20.9m	£23.2m	£23.0m

The BP26 budget includes provision for delivery partner procurement to conclude before Q2 2027 to move faster through our procurement plan. Acceleration would allow earlier onboarding of our delivery partners, and procurement costs for licences, hosting etc. would consequently crystallise. We have therefore made provision for this possibility in BP26, rather than risking a forced hiatus in project progress.

A more granular breakdown of the BP26 budgets, including splits by category, was provided in confidential briefings to contract managers in November 2025 as part of the BP26 consultation programme.

For BP26, the split by DSC constituency is as follows:

Table 9: DSC Constituency Alignment

BP26	Shipper	National Gas	Distribution Network	Independent Gas Transporter
Proposed Share (%)	51.50%	5.90%	41.20%	1.30%
Proposed Share (£m)	10.77	1.23	8.62	0.28

7.2.2 Whole-Life Cost Considerations

Total Cost of Ownership (TCO) has been built into the cost modelling for the shortlist options, with a more detailed model created for the preferred option. As referenced in the Economic Case Critical Success Factor analysis (section 5.3.5), we have completed Net Present Value and TCO cost evaluation of the current financial information for each of the options. To avoid eroding our commercial position, the detail of the numbers was not included in the Outline Business Case (OBC) but rather in an addendum to the OBC for internal use. The following considerations were included in the TCO evaluation up to 2040 is below:

- procurement
- solution build (Design, Build and Test)
- licensing
- hosting
- service run
- change management
- third-party support
- Customer testing costs
- delivery risk.

The indicative figures for these costs have drawn on market insight from expert advisors, as well as existing internal benchmarks and other industry perspectives.

7.3 Funding Arrangement

In the SOC, we proposed that existing funding mechanisms[33] would likely be the most appropriate approach for cost allocation across the Customer base to pay for Project Trident. Following on from the SOC, we looked into the options for alternative funding arrangements. These options were presented to the full Xoserve Board in October 2024. The Board concluded that Project Trident costs are best shared between the DSC constituencies based on the common funding split described in section 7.2 of the budget and charging methodology.[34]

33 Budget and Charging Methodology
34 Budget and Charging Methodology

7.4 Affordability Assessment

The procurement plan outlined within the Commercial Case (6.3.3) includes provision for iterative improvement of vendor pricing, including collaborative development to build greater understanding between Xoserve and potential delivery partners. This will conclude with a BAFO submission on vendor costs.

As part of the procurement plan, a review of timings for ramp-up of licence costs will be completed as part of our negotiations with software vendors. The procurement phase will also explore vendor appetite for investment opportunities: e.g. it is sometimes possible to negotiate 'seed funding' from vendors as part of committing to a platform or service.

Conclusion of the RFP process will provide us with a more accurate view of project cost profiles and whole-life costs. This information will be captured within the FBC.

7.5 Areas of Uncertainty

In addition to the fact that costs indicated are estimates rather than market-tested, there are several other areas of uncertainty within the SAP Hybrid option design, and Project Trident decision-making, which will shape the final cost profile.

Product Optionality: As the preferred option detailed in the Economic Case is an SAP S/4HANA Core with optionality around the integration, reporting and data components, the total cost of the preferred option is based on high-level estimates at this stage of the project. There are remaining product/tooling choices to complete for both integration, and reporting/ data components, as described within the Economic Case. The Architecture team are working through the hybrid optionality required for each component identified in the Trident technical scope (section 4.4) including assessment criteria to support decision-making for the available options.

In addition to the architecture insight, the PQQ questions are shaped to gain delivery partner insight into the options available, based on the hybrid optionality shortlist that Xoserve's Enterprise Architecture team have created for each of the components in scope. Product selection criteria will include more detailed cost profiles from the various vendors, incorporating where appropriate relative costs of software-as-a-service vs on-premise licensing. We expect to have hybrid component product preferences available for our RFP, to allow vendors to optimise their pricing. Our current estimates are informed by a combination of known historic costs and public vendor price lists.

Data Volumes: SAP S/4HANA's in-memory architecture provides high performance and scalability compared to traditional relational databases. However, the machine capacity to achieve this does have cost implications. We will be reviewing data retention requirements as part of our future data strategy, including archiving where possible to support cost efficiencies in hosting (see section 8.2.6 for more detail on archiving). This will allow us to optimise data ingress/egress and processing costs and reduce enduring cost from both a project delivery and a whole-life cost perspective.

Financial Implications for DSC Customers: It is currently unclear whether Customers of the CDSP services will need to invest in adapting their own systems and business processes as a result of Project Trident and its modernisation of UK Link. Our principle of minimising Customer impact remains essential to the project and at the moment we expect as a minimum our Customers to invest time in testing the new solution. If change to internal systems is required as a result of Project Trident, we will communicate this to Customers as soon as possible.

7.6 Risk and Contingency

The costs referenced in section 7.2 have been informed through consulting a number of sources, including our Solution Definition work and input from external vendors developing cost profiles for Project Trident's Custom and SAP-based Economic Case options. However, there remains uncertainty and financial risk around the Project Trident budget, with numbers requiring market testing. The costs considered for the purposes of the OBC are 'best estimates', given the maturity of the project to date and all options meet affordability criteria.

The FBC will provide a more accurate view of vendor costs following insight from initial RFP responses, and figures will be further refined through the BAFO process. This will be the first 'market-tested' view of costs.

8. Management Case

The Management Case presents a matured view of Project Trident governance, our approach to delivery, and risk management – in relation to the preferred option as described in the Economic Case.

Since the publication of the Strategic Outline Case (SOC), we have continued to mature and grow our delivery capability. Our governance has evolved with additional participants and sub-committees, including two Customer Advisors who join the fortnightly Project Trident Steering Committee to represent the interests of our Customers. We have also increased our delivery capacity and capability through appointment of specialist external organisations to support the remainder of our procurement phase and into our implementation phase.

Our proposed delivery approach has also evolved. We are now forecasting a 'longer and thinner' project delivery and have indicative delivery plans for the remainder of the project, together with emerging views of when Customer testing will be scheduled. These plans are however all subject to further refinement with our delivery partner(s) once selected.

We continue to follow best practice risk management processes within the project, and have appointed PwC as our external project assurance partner to provide both ongoing and spot reviews of our progress.

We are confident the management arrangements described in this Outline Business Case (OBC) provide the right framework for successful delivery of Project Trident, while recognising that this will continue to evolve as we move through procurement and into our implementation phase. A further update will be provided within the Full Business Case (FBC).

In summary

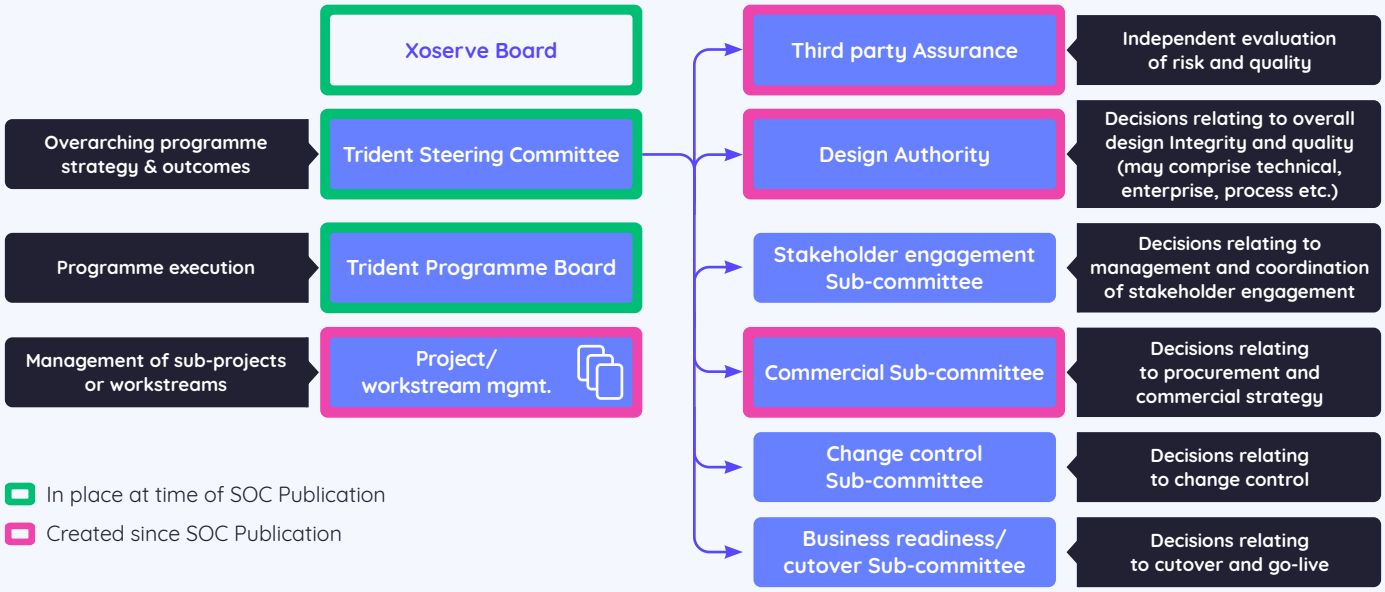
- **Project Trident's governance now includes Customer Advisors and external specialists to better represent Customer interests and support delivery capability.**
- **Delivery plans are now longer-term and phased, with Customer testing timelines to be finalised with partners.**
- **PwC provides independent assurance, strengthening ongoing risk management and project oversight.**

8.1 Project Governance and Delivery Partners

8.1.1 Project Governance Updates

Our governance of Project Trident has evolved through our pre-procurement phase broadly in line with what we envisaged in the SOC. The diagram below is an update on section 6.1.2 of the SOC, showing the additional committees and governance forums set up since SOC publication.

Figure 11: Project Governance Structure



We have made the following enhancements to governance:

- PwC were appointed as our assurance partner in April 2025. They provide independent assurance for Project Trident, reporting into the Steering Committee and ultimately the Xoserve Board, with a forward-looking focus on the plans and approach that the Project Trident team are adopting. They will review and assure at key points in the delivery lifecycle, which will support Customer confidence in the direction Project Trident is taking.
- We have appointed two (interim) Customer Advisors to represent the voice of the Customer at the highest Project Trident decision-making forum, the Steering Committee. These Customer Advisors bring experience of the needs of shipper and transporter Customers. They have joined the fortnightly Steering Committee, attend our Customer briefings, are available for ad-hoc Customer meetings and also provide a drop-in forum for Customers every two months, either as part of existing forums or in new dedicated sessions. Customers are also able to contact their Customer Advisors through advertised email addresses, as well as via the existing Stakeholder Management team, to share questions and feedback as Project Trident progresses.
- We have created the Architecture Review Board (ARB) as the forum for architectural governance; this was previously known as the Design Authority. The ARB will govern technology change and strategy across both Project Trident and broader Xoserve, including rollout to cover the delivery of business-as-usual (BAU) change and systems maintenance.
- We have created a project 'drumbeat' of our key governance forums, namely the fortnightly Steering Committee and weekly Project Boards, underpinned by robust workstream management and project office processes.
- We have established a Commercial and Procurement Board for Project Trident, to progress procurement and commercial strategy issues before wider socialisation with the project team.
- We have set up a change control process for Trident, with an underpinning Change Board, in order to control change while retaining alignment between future Trident and BAU work for UK Link (see section 8.2).

Following appointment of our preferred delivery partner(s), we expect this governance structure to largely continue. As we move through Design, Build and Test (DBT) we expect to see additional focus and forums to ensure business readiness. This work will cover implementation and cutover arrangements, including market testing, cutover approach etc. We will invite key project delivery vendor representatives to become involved in governance, either at Project Board or Steering Committee level.

We also expect to launch our stakeholder engagement forum in H1 2026, initially to refine potential pain-point candidates for inclusion in Project Trident's scope. This forum will evolve through the various Project Trident phases to consult on other areas impacting our Customers.

Table 10: Governance Activities

	Pre-Procurement	Procurement	Design, Build, Test	Cutover/ Go-live	Hypercare/ Go-live
Key Activities	• Strategic/Outline Business Cases	• Market engagement, procurement • Requirements, solution options • Full Business Case	• Detailed design • Building/ configuration • Testing	• Data migration • Cutover • Business readiness • Customer readiness	• Transition to support
Steering Committee	✓✓	✓✓	✓✓	✓✓	✓✓
Project Board	✓✓	✓✓	✓✓	✓✓	✓✓
Workstream Management		✓	✓✓	✓✓	✓
Third-Party Assurance	✓	✓✓	✓✓	✓✓	✓
Design Authority		✓	✓✓	✓✓	✓
Stakeholder Engagement	✓	✓✓	✓✓	✓✓	✓✓
Commercial		✓✓	✓	✓	✓
Change Control		✓✓	✓✓	✓✓	✓✓
Business Readiness			✓	✓✓	✓✓

✓ Some activities in progress – accountabilities may be included in another governance group

✓✓ Fully active

Table 11: Governance Overview

	Responsibilities	Representation
Steering Committee	Overarching project strategy and outcomes	• Executive/senior-level sponsors, leads and function representation • Key suppliers/partners • Customer representation
Project Board	Project execution	• Delivery leadership
Workstream Management	Management of sub-projects or workstreams	• Workstream/project teams
Third-Party Assurance	Independent evaluation of risk and quality	• Independent assurance (input to Steering Committee)
Design Authority	Decisions relating to overall design integrity and quality (may comprise technical, enterprise, process etc.)	• Architecture (technical, enterprise, data etc.) • Process owners • Project management • Test lead
Stakeholder Engagement	Decisions relating to management and co-ordination of stakeholder engagement	• Stakeholder engagement/communications • Project management • Customer representation
Commercial	Decisions relating to procurement and commercial strategy	• Project management • Finance and support • Procurement/commercial • Legal
Change Control	Decisions relating to change control	• Project management • Architecture (technical, enterprise, data etc.) • Process owners • Risk/compliance • Procurement/commercial • Test lead
Business Readiness	Decisions relating to cutover and go-live	• Project management • Test lead • Change management, training etc. • Finance and support • Cutover leadership • Stakeholder engagement/communications • Business function representation • Risk/compliance

8.1.2 Expert Advisor Capability

We have augmented our project team with the appointment of expert advisors to bolster our capability and capacity. Advisors were chosen through a market selection and procurement exercise:

Resulting IT were appointed as our enterprise advisors in November 2024, ensuring we have the best advice on all things SAP. Their responsibilities include advice on SAP best practices, licensing, optimisation options etc., together with helping us understand the details of our existing SAP estate and the implications of migrating this to SAP S/4HANA. They provide strong links with SAP through their specific network.

Credera were appointed as our project support services partner in January 2025. They provide a range of project services including leading on our HM Treasury Green Book business case, as well as providing stakeholder management, project management and commercial advice. It is expected Credera's services will continue as we transition from the procurement phase to the project delivery phase.

Moorhouse were appointed as our industry Customer engagement partner in March 2025. They led the UK Link pain-point Customer engagement activities in spring/summer 2025, engaging with industry participants such as shippers, distribution networks and independent gas transporters to review existing pain points within our current UK Link solution and the broader Xoserve estate, alongside discussions as to how the estate might evolve.

Going forward, Moorhouse will continue to support our industry Customer engagement, working as part of our stakeholder management workstream.

PwC were appointed as our assurance partner in April 2025. They provide independent assurance for Project Trident, reporting into the Steering Committee and ultimately the Xoserve Board, with a forward-looking focus on the plans and approach that the Project Trident team are adopting. They will review and assure at key points in the delivery lifecycle, which will support Customer confidence in the direction Trident is taking.

Esyasoft were appointed in June 2025 to provide SME architectural support to our Solution Definition work, helping us to understand the technical feasibility of SAP migrations using automated migration tooling such as SNP CrystalBridge and smartShift. Esyasoft continue to support as advisors through our procurement phase.

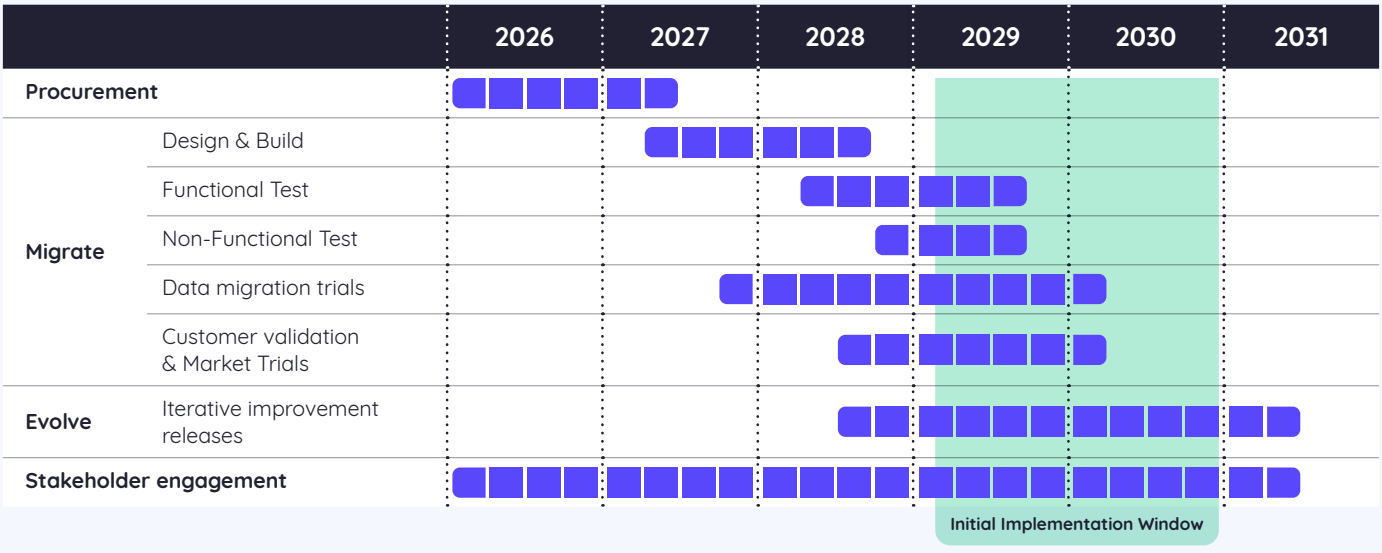
8.2 Project Plan

8.2.1 Timelines And Milestones

The below plan is indicative and based on insights from our Solution Definition work and market analysis. It maintains the commitment to a 'longer and thinner' project delivery compared to our original plan articulated in the SOC, but within the same cost envelope.

We have identified a target implementation window for our initial migration to the new SAP S/4HANA platform and upgraded or replaced SAP reporting and integration components from early 2029 to late 2030, to set expectations on when we will require Customer support for industry testing. Building on advice gathered through our current work, we will work with our selected delivery partner/s to firm up the baseline Project Trident delivery plan as part of procurement and mobilisation. We will include Customer input for the Customer validation and market trials area.

Figure 12: Project Trident Plan Timelines



We expect Project Trident to realise its objectives of a supported flexible platform with an agile modern architecture through multiple stages:

- The initial stage will use automated tooling (e.g. smartShift and SNP CrystalBridge) to migrate the existing UK Link solution to a supported platform based on SAP S/4HANA IS-U; this is the priority for Project Trident. This work will include addressing solutions for other SAP end-of-service products within the technology stack which are also falling out of extended support in 2030. A key recommendation from experts who have undertaken this type of migration is that this initial 'migrate' phase concentrates on like-for-like migration as far as possible. Therefore, Project Trident will seek to minimise new code changes, including those identified by pain-point analysis, such that initially the project is as much as possible a 'lift-and-shift' migration. Functional changes will be targeted for delivery after migration to the SAP S/4HANA platform. We expect to deliver this stage no later than 2030, to ensure continuity of support for the UK Link Core.
- The further stages will optimise the code base, based on a prioritised backlog of Project Trident opportunities. This backlog will consist of pain points identified at our workshops in summer 2025, future (yet to be identified) industry change, BAU Customer change, decoupling of custom code to microservices, etc. – with multiple releases being scheduled via appropriate planning against agreed capacity. This stage will commence in parallel with the SAP Core and SAP end-of-service products migration phase, as design and development capacity becomes available, with delivery scheduled only once stage 1 hypercare is complete. The backlog will be a key artefact that is handed over to our BAU organisation at the close of the project, subject to closedown criteria being met. The UK Link solution will then revert to 'sustain' mode through to 2040.

8.2.2 Change Control

Project Trident has implemented a change control process (launched at the Change Management Committee and Contract Management Committee meetings in June 2025) to ensure that we:

- maintain alignment between BAU (legacy UK Link) and Project Trident (future UK Link)
- minimise risk and increase reliability of the future UK Link from day 1, by controlling the addition of new functionality from BAU Customer change delivery and pain-point workshops for example
- optimise industry costs for delivery of BAU change during initial Project Trident delivery.

This process dovetails with existing UK Link change control processes, minimising additional work for Customers. A high-level description of the approach is available on the Joint Office Website.[35]

35 Project Trident Change Impact Assessment Approach

8.2.3 'Change Chill' Considerations

Project Trident has agreed a 'handshake' with the UK Link Service Management team to ensure Project Trident functionality remains aligned with changes to (legacy) UK Link. To avoid risks to day-1 delivery for the project, the volume of change on the legacy UK Link platform will reduce and eventually cease in preparation for cutover. We propose to manage this through a 'Change Chill' initially, and eventually a 'Change Freeze'.

A Change Chill is a period of time when the volume and complexity of change will be restricted, typically blocking more major updates, but allowing minor tweaks and bug fixes to proceed; while a Change Freeze is a total stop on non-emergency changes to de-risk cutover. Our intent is to keep the periods for Change Chill and Change Freeze as short as possible. The use of automated migration tooling means that code changes to core SAP in the current UK Link should largely be treated as 'migration deltas' rather than requiring re-coding. This should allow shorter periods of Change Chill and Change Freeze, but this will be confirmed with our appointed delivery partners.

We will develop cutover and implementation plans with our selected delivery partner/s, and will review these with our Customers through appropriate forums, before they are confirmed in the FBC.

8.2.4 Customer Testing

While our preferred option approach aims to minimise change at the Customer interface, we still intend to involve Customers in a degree of final testing to ensure reliable performance as Trident goes live.

Delivery of Project Trident will include new infrastructure, and so we will require our Customers to be involved in a base level of 'string testing' to exchange a set of messages to validate connectivity and firewall rules, as well as ensuring that correct information and data formats are appearing in a response file. We will also undertake more involved Customer testing to validate – on both Xoserve and Customer systems – that we get the expected results for submission and response to existing file flows between Customers and Xoserve. In addition, we will support Customer testing of the UK Link portal to ensure the same level of operability and access for Customers as before.

We will work with our Customers and delivery partners to scope this Customer testing as part of our planning phase, including potential reuse of existing production messages and/or creation of synthetic and obfuscated data, and the level of involvement we will ask our Customers to have.

8.2.5 Cutover

We will build in multiple data migration trials to the Project Trident delivery plan to optimise this area and minimise the downtime at cutover. Our Solution Definition analysis highlights an expectation of no more than a 25-hour outage window at cutover when using tooling such as SNP CrystalBridge, and we will seek to meet or improve on this as part of our work with delivery partners. Cutover will be timed to occur on non- system business days (i.e. a weekend) to avoid disruption to industry processing.

As part of cutover planning, cutover dates will be agreed collaboratively between our Customers, Xoserve, and our Transformation and Core Services partners, providing at least the minimum six months' notice period. Consideration will be given to invoicing cycles and business processes, with notification periods as part of this planning.

8.2.6 Pre-Implementation Project Trident Activities

As a result of our recently completed Solution Definition phase, we have identified a number of tasks which, if completed in advance of Project Trident, will simplify the project and provide a level of risk mitigation:

- Database and performance optimisation:
  - We will fix fragmentation and delete unnecessary indexes to improve current performance and shorten the migration cutover window.
- Data footprint reduction:
  - We will run a targeted archiving initiative with virtualisation of archived tables, so only the required data is moved to SAP S/4HANA for Utilities.
  - We will ensure planned archiving changes, XRN5922[36] and XRN5914,[37] are aligned to the industry's Uniform Network Code cut-off date (2–3 years on a rolling monthly basis from April 2026).
  - We will limit data growth without affecting Xoserve's service obligations.
- Streamline custom code:
  - We will validate unused code, reducing where possible what needs re-factoring, and leveraging automation where possible to standardise, accelerate and de-risk the migration.

If the tasks listed above are not scheduled for delivery against the legacy UK Link code base, they will be added as activities to take place in advance of Project Trident implementation.

36 Change Proposal for XRN 5922 Cut-off Dates
37 Change Proposal for XRN 5914 Cut-off Dates

8.3 Risk Management

8.3.1 Risk Methodology

Project Trident has a documented risk process, with risk assessment placed at the heart of the delivery lifecycle. Risks are updated weekly both within the workstream and at a project level, and key risks are reviewed fortnightly at Steering Committee meetings. There is also a monthly detailed review of project risk to ensure alignment across workstreams, including relative weighting of risks. We have an established risk escalation process whereby risks can, if appropriate, be escalated either to the BAU or Xoserve corporate risk registers.

8.3.2 Highest Risks

As Project Trident has advanced, we have taken forward the identified project risks from the SOC as follows:

1. **Finalising the scope and generating accurate specifications for tender:**
   We have developed a baseline set of requirements through value chain analysis, which we have validated against existing Local Work Instructions (LWIs) and other authoritative sources. In addition, we have completed the Solution Definition phase of the project to enhance our understanding of the delivery implications associated with the preferred option. This has included assessing the level of automated code migration that delivery partners might reasonably achieve using available tooling. These insights will inform our procurement documentation, enabling prospective partners to submit competitive and robust commercial estimates.
2. **Generating market interest in the procurement:**
   We ran a market engagement exercise in at the end of 2024 and received 17 responses (see section 6.1). Subsequently, we have invested in further engagement through a series of face-to-face meetings. We are confident that there will be multiple viable bidders, ensuring a commercially acceptable outcome and the appointment of a delivery partner to realise Project Trident's vision.
3. **Maintaining cost and time estimates for delivery:**
   Throughout the year, we have strengthened reporting and governance arrangements to ensure visibility of emerging issues. Furthermore, we have introduced external assurance from PwC within our governance forums to provide independent scrutiny and an objective perspective.
4. **Ensuring sufficient resource capacity for delivery at this scale:**
   Specialist delivery partners have been appointed (see section 8.1.2) to support the procurement phase. We continue to balance BAU operations alongside Project Trident delivery and will maintain a forward-looking view of resource capacity and skills to ensure successful delivery.

8.3.3 Assurance

Following a competitive process, PwC has been appointed as the Project Trident assurance partner. The firm provides a combination of ongoing assurance of project delivery (attending regular project meetings to take the 'pulse' of the project), and point assurance on specific deliverables or stage-gate milestones. Recent examples include:

- procurement documentation quality reviews
- Solution Definition outputs
- preferred hypothesis approach.

PwC has representation on the Project Trident Steering Committee, providing a monthly independent perspective on project progress, risks and challenges. PwC has also presented to Customers at DSC Contract Management Committee (CoMC) meetings and can be called upon to do so on a more regular basis if required.

8.4 Stakeholder Engagement Planning

As discussed in section 4.1.6 of the Strategic Case, there has always been a Project Trident commitment to engage Customers at regular intervals throughout the project and at critical milestones. There have been multiple channels and approaches developed to fulfil this engagement strategy and a communications plan to deliver messaging through the right channels and in a timely manner.

8.4.1 Communication and Engagement Channels

The key engagement channels we have invested in to provide multi-channel communications to our stakeholders are:

- Project Trident homepage:[38] Central hub for project information, resources and updates.
- Monthly newsletter (**The Tide**): Launched November 2024 and now has 450+ subscribers; summarises top project updates.
- Introduction presentation: Inducts new Customers, by outlining Project Trident's aims, scope and progress.
- Governance overview: Explains Project Trident decision-making processes.
- Customer briefings: Collection of publicly available briefings posted online.
- Rolling Q&A log: Publishes non-sensitive questions and answers, to promote transparency.
- Contact routes: Clear pathways have been established for stakeholders to reach the Project Trident team.
- Closed sessions: For commercially sensitive matters, we are using established forums such as CoMC and ChMC (the DSC Change Management Committee) to provide quarterly updates on costs, audits and progress.

38 Project Trident Homepage

Milestone engagement activities which have taken place for Project Trident to date include:

- **Sept 2024:** Launch event introducing Project Trident and soliciting Customer feedback.
- **Nov 2024 – Feb 2025:** Customer briefings on BP25 and market engagement.
- **Apr – May 2025:** 'Lessons learned' survey and Customer interviews on IT migration experiences.
- **June 2025:** Appointment of Steering Committee Customer Advisors to enhance governance transparency; launch of change impact assessment and control principles.
- **May – July 2025:** Eight UK Link pain-point workshops with 133 Customer representatives, resulting in a comprehensive pain-point report.
- **July 2025:** Customer Strategy Day presenting Solution Definition work outcomes and the rationale for down-selecting the various project options.
- **July – Sept 2025:** Consultation on the preferred hypothesis for the future UK Link solution, with results published October 2025.
- **Nov 2025:** Project Trident confidential Customer briefing on BP26.
- **Dec 2025:** Preferred option Customer briefing.

8.5 Post-Implementation Review

As part of Project Trident closure, the team will perform appropriate due diligence on delivery including:

- **Verification of Business Case Outcomes**
  A structured assessment of whether the programme has delivered the outcomes, benefits and value commitments set out in the SOC, OBC and FBC. This will include measurement against agreed KPIs, cost profiles, and benefits realisation plans.
- **Assessment of Lessons Learned and Continuous Improvement**
  A full 'lessons learned' exercise covering delivery approach, governance, stakeholder engagement, technology decisions and BAU transition. Findings will be catalogued and formally handed in to our Change and Portfolio Management functions.
- **Assessment of Delivery Effectiveness**
  An evaluation of delivery performance against scope, schedule, budget, quality and risk management. This will include analysis of variances and identification of best practices that should inform future projects.
- **Sustainability and Ongoing Value Assessment**
  A review of the Project Trident solution stability, maintainability, cost-to-serve and alignment to our long-term technology strategy. The aim will be to confirm that the solution continues to provide value and can be supported effectively post go-live.
- **Stakeholder and User Experience Assessment**
  Collection of structured feedback from Customers, industry participants, internal teams and other stakeholders to evaluate adoption of and satisfaction with the new system, and the effectiveness of training, communication and change management activities.
- **Handover and BAU Readiness Confirmation**
  Confirmation that all documentation, processes, service level agreements (SLAs) and support models have been fully transitioned into BAU and are operating as intended.

9. Next Steps

These are the next steps Project Trident will be focusing on moving forward:

- **Refinement of the business case, ensuring that outcomes and benefits identified in the Outline Business Case are validated and further developed for inclusion in the Full Business Case (FBC).**
- **Launch and review of responses to the Pre-Qualification Questionnaire and Request for Proposal.**
- **Detailed design and solution development, including confirmation of key technology choices, delivery partners, and solution architecture.**
- **Continued comprehensive risk assessment and mitigation planning, considering lessons learned from earlier project phases and stakeholder feedback.**
- **Finalisation of cost profiles, funding arrangements and benefits realisation plans, ensuring alignment with organisational objectives and long-term strategy.**
- **Stakeholder engagement and communication to confirm support for the proposed approach and secure necessary approvals.**
- **Preparation of documentation and evidence required for FBC submission, including conformation of the Project Trident procured solution, updated KPIs, project schedule, and governance arrangements.**

10. Appendices

Appendix 1

Strategic Case – Section 4.1 Strategic Outline Case Options

Table 12: SOC Options Overview

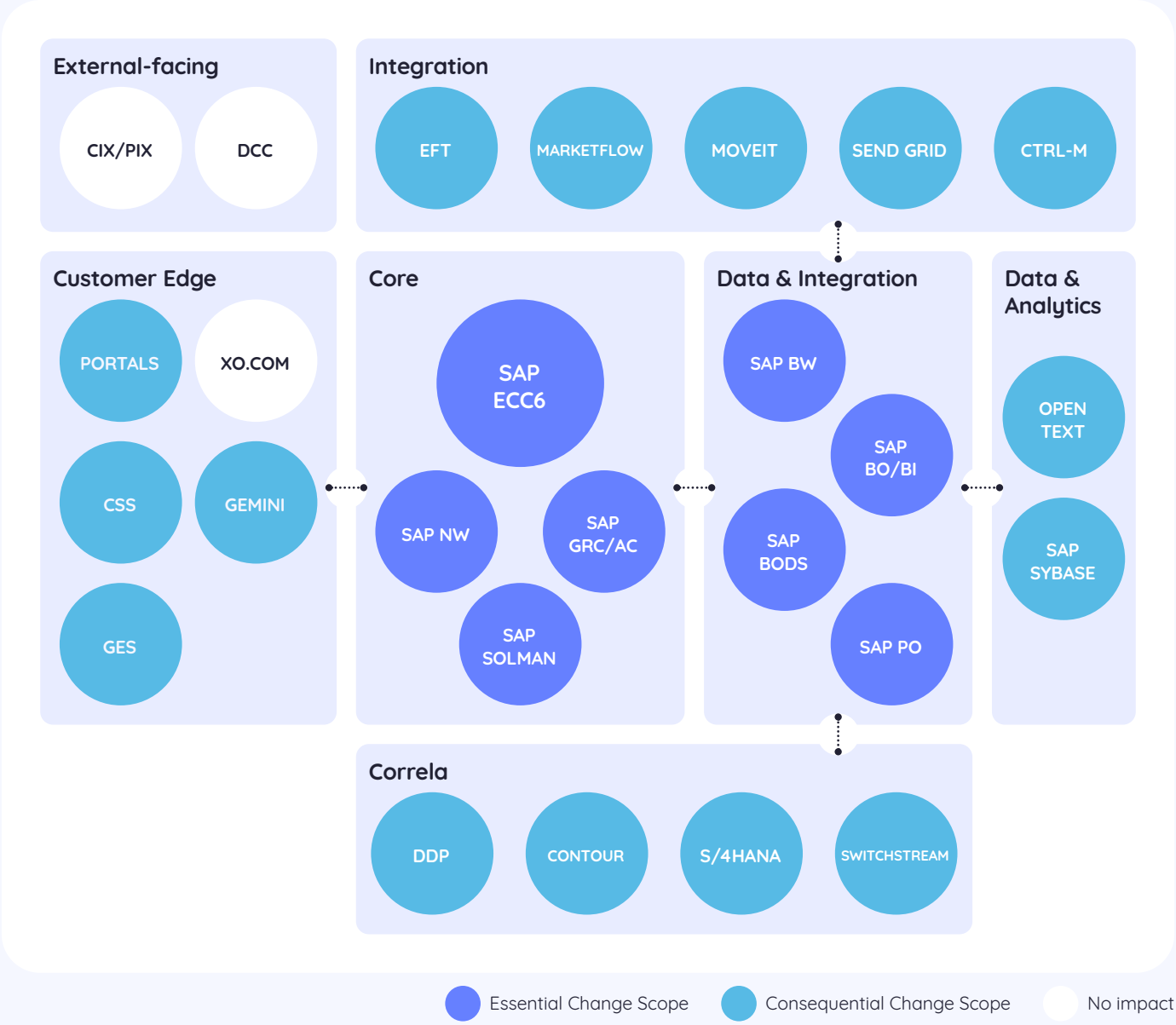
SOC Options Overview	Variant	Meets Strategic Objectives
Do Nothing		**Unlikely** – does not prioritise security and availability of data to Customers. Limits ability to react to market changes
Extended Support	1. SAP Extended Maintenance until 2030.	**Unlikely** – does not prioritise security and availability of data to Customers beyond 2030. Limits the ability to react to market changes. NB: This option may be needed as an interim solution from 2027 until the strategic option is live
	2. SAP Customer Maintenance.	
	3. Third Party Support.	
***SAP Renewal**		**Likely**
***Alternative ERP Package**	1. Established vendor.	**Likely**
	2. Challenger solution.	**Likely**
***Self-Build**	1. Full Greenfield Build.	**Likely**
	2. Greenfield Build with Accelerators.	
	3. Brownfield Build on CSS.	
***Hybrid**	1. Buy Database, Build Modules.	**Likely**
	2. Build Database, Buy Modules	**Unlikely** – unlikely to provide value as the effort would be greater than options C, D but the benefit would be the same

* These are the original option titles from the Strategic Outline Case which have developed further in the Outline Business Case.

Appendix 2

Strategic Case – Section 4.4 Project Trident Scope

Figure 12: Project Trident Essential and Consequential Components



Appendix 3

Economic Case – Section 5.1.1 Project Trident Longlist Objectives Assessment

Table 13: Longlist Objectives Assessment

Objective	Do Nothing	Extend Support	SAP	Alternative ERP	SAP Hybrid	Custom Build
Deliver a UK Link, that as a minimum, provides **the same functionality** for stakeholder groups that the system provides today.						
To deliver a simple and robust system that is capable of efficiently **adapting to future** requirements.						
We want to **limit changes to our Customers** but will explore improvement options which may enhance the way Customers interact with UK Link data by considering **innovation and futureproofing** when deciding on the technical solution.						

 Aligned  Partial  Not Aligned

Appendix 4

Economic Case – Section 5.3.5 Critical Success Factors Alignment

Table 14: Longlist High-Level CSF Assessment Overview

CSF	CSF Description	Do Nothing	Extend Support	SAP	Alternative ERP	SAP Hybrid	Custom Build
Affordability	Cost to implement the programme aligns within agreed financial constraints	Aligned	Aligned	Aligned	Partial	Aligned	Aligned
Value for Money	Delivers a solution that considers whole lifecycle costs up to 2040 as a minimum	Partial	Aligned	Aligned	Aligned	Aligned	Aligned
Achievability	The programme must be deliverable by 2030 with low implementation and cutover risk, using proven methods and technologies	Aligned	Aligned	Aligned	Not Aligned	Aligned	Aligned
Strategic Fit	Aligned with the industry and regulatory need for adaptability and flexibility of UK Link	Not Aligned	Partial	Aligned	Partial	Aligned	Aligned
Capability	Provides a UK Link solution which delivers like-for-like functionality as a minimum, with stakeholders engaged throughout the process	Aligned	Aligned	Aligned	Not Aligned	Aligned	Aligned
Achievability	Be well supported to reduce risks to security, availability and integrity of data	Not Aligned	Partial	Aligned	Aligned	Aligned	Aligned
Capability	Attractive to suppliers who can deliver a tested and assured system with minimal impact on Customers	–	Aligned	Aligned	Aligned	Aligned	Aligned
Achievability	The programme must be commercially deliverable through competitive procurement with balanced risk transfer	–	Partial	Aligned	Aligned	Aligned	Aligned
Strategic Fit	The programme must align with Xoserve's corporate objectives and strategy whilst supporting industry regulatory objectives	Not Aligned	Not Aligned	Aligned	Not Aligned	Aligned	Aligned

Aligned Partial Not Aligned – Not Applicable

Appendix 5

Economic Case – Section 5.1.1 Architecture Principles Assessment

Table 15: Longlist Architecture Assessment

Architecture Principles	Do Nothing	Extend Support	SAP	Alternative ERP	SAP Hybrid	Custom Build
Business Principles						
Maximise Benefit to the Organisation	Not Aligned	Not Aligned	Aligned	Aligned	Aligned	Aligned
Architecting for Value	Aligned	Aligned	Partial	Aligned	Partial	Aligned
Put the Customer at the Centre	Not Aligned	Not Aligned	Aligned	Aligned	Aligned	Aligned
Ownership of Control	Not Aligned	Not Aligned	Aligned	Aligned	Aligned	Aligned
Avoid Niche Products and Specialist Resources	Aligned	Aligned	Aligned	Partial	Aligned	Partial
Data Principles						
Data is an Asset	Not Aligned	Not Aligned	Aligned	Aligned	Aligned	Aligned
Data is Shared not Duplicated	Not Aligned	Not Aligned	Not Aligned	Not Aligned	Partial	Partial
Data Lifecycle Management	Not Aligned	Not Aligned	Aligned	Partial	Aligned	Aligned
Maintain Test Data like Any Other Data	-	-	-	-	-	-
Application Principles						
Technology Independence	Aligned	Aligned	Aligned	Aligned	Aligned	Aligned
Ease of Use	Partial	Partial	Partial	Partial	Partial	Aligned

Aligned Partial Not Aligned - Not Applicable

Economic Case – Section 5.1.1 Architecture Principles Assessment continued

Table 16: Longlist Architecture Assessment

Architecture Principles	Do Nothing	Extend Support	SAP	Alternative ERP	SAP Hybrid	Custom Build
Technology Principles						
Interoperability	Partial	Partial	Aligned	Aligned	Aligned	Aligned
Simplicity by Design	Not Aligned	Not Aligned	Partial	Partial	Aligned	Aligned
Dynamic Scalability	Not Aligned	Not Aligned	Not Aligned	Partial	Partial	Aligned
Consistent Environments	-	-	-	-	-	-
Resilient by Design	Partial	Partial	Aligned	Aligned	Aligned	Aligned
Favour Automation	Not Aligned	Not Aligned	Aligned	Partial	Aligned	Aligned
Observability	Partial	Partial	Partial	Aligned	Partial	Aligned
Avoid Proprietary Technologies and Languages	Partial	Partial	Not Aligned	Partial	Partial	Partial
Security Principles						
Secure by Design	Aligned	Aligned	Aligned	Aligned	Aligned	Aligned
Data Security and Privacy	Aligned	Aligned	Aligned	Aligned	Aligned	Aligned
Principle of Least Privilege	Not Aligned	Not Aligned	Aligned	Aligned	Aligned	Aligned
Governance Principles						
Governance and Compliance	Aligned	Aligned	Aligned	Aligned	Aligned	Aligned
Data Governance	Aligned	Aligned	Aligned	Aligned	Aligned	Aligned
Lifecycle Management	Aligned	Aligned	Aligned	Aligned	Aligned	Aligned
Totals	**8**	**8**	**16**	**15**	**20**	**17**

Aligned Partial Not Aligned - Not Applicable

Appendix 6

Economic Case – Section 5.1.1 Longlist Down-Select Summary

Table 17: Longlist to Shortlist Downselect Summary

	Do Nothing	Extended Support	Alternative ERP
Option Overview	Run UK Link without SAP product support	Run UK Link with extended product support	Migrate UK Link core to alternative service provider: energy/utilities-specific or alternative ERP
Benefits	• Cessation of licence costs • No project costs	• Will extend support to 2040 and beyond (support as long as required) • No project costs	• Potential for competitive pricing • Commercial reset • Greenfield opportunity for optimisation • Could support architecture in achieving technology roadmap
Risks	• Serious security risk • Does not align with future flexibility requirement • Does not align with the technology roadmap • If the system fails, this could be detrimental to all market	• Not likely to align with current service level agreements (SLAs) • Does not align with future adaptability and flexibility requirement • Does not align with the technology roadmap	• No commercial incentive for utilities-industry-specific options – as Central Data Service Provider (CDSP) requirements will mean customisation of the system as a 'one-off' • A new ERP provider will need to build a highly customised solution due to CDSP requirements
Key reason(s) for not being shortlisted	1. Does not address flexibility/agility concerns 2. Not a suitable platform to 2040 3. Security risk 4. Increasing product compatibility challenges 5. Harder to meet SLAs over time 6. Future commercial challenges (DSC+)	1. Does not address flexibility/agility concerns 2. Not a suitable platform to 2040 3. Increasing product compatibility challenges 4. Provides a degree of support, but still harder to meet SLAs over time. 5. Not all vendors cover Security patches 6. Future commercial challenges (DSC+)	1. No suitable energy/ utilities product to address CDSP role requirements 2. Lack of utilities-specific solution and commercial appetite 3. Migration challenges moving to alternative ERP 4. Greenfield implementation would be high risk and likely to involve significant Customer testing ahead of cutover

Appendix 7

Economic Case – Section 5.3.2 Custom Build Option

CGI Custom Build Report Assessment

Table 18: Custom Build Report Summary – CGI

Risk Category	Description	Mitigation	What it means for Xoserve
Delivery & Scope	Scope creep due to market change or stakeholder input	Agile delivery, phased Minimum Viable Product, capacity for change	We have a baseline principle of replicating current capability and limiting Customer impact. Sticking to this principle provides the basis for our scope management, limiting scope creep.
Integration Complexity	Underestimated integration and data complexity	Early interface mapping, rehearsal cycles	We have a strong understanding of our present integration landscape.
Extended SME Involvement	Need for ongoing expert involvement post go-live	Plan for hypercare, internal capability build	Much of our SME capability lies with our existing service providers. Providing SME support for a custom build would be complex for us to achieve.
Technology & Architecture	Platform lock-in, limited flexibility	Keep 'commercial off-the-shelf' simple, allow migration	We may want to retain our existing IP
Data Migration	Underestimated effort for legacy data migration	Profile and cleanse data early	Understand if we have a big data-cleanse problem. With Brownfield we may be carrying existing data issues forward
Cost Escalation	Linked to parallel market reform	Separate reform and system budgets	We are not expecting significant market reform within the Trident lifetime. This supports our preference for replicating current functionality rather than re-architecting the solution.
Governance	Multi-party governance causing slow decisions	Clear decision rights, escalation paths	We understand this may cause delays to Project Trident if streamlining is not in place
Participant Readiness	Low engagement/ readiness among market participants	Early iterative engagement and testing	We are looking to minimise change for our Customers; Customer engagement is may increase over programmes that have implemented new market models alongside new technical solutions.

Netcompany Custom Build Report Assessment

Table 19: Custom Build Report Summary – Netcompany

Risk Area	Description	Mitigation
Industry Risk	Regulatory changes or code modifications affecting design/timeline	Proactive engagement with Ofgem, flexible architecture, parallel operation, testing
Data Risk	Migration from SAP IS-U risks data loss or inconsistency	Detailed migration strategy, dual-run reconciliation, automated checks
Compliance Risk	Failure to meet ISO 27001, GDPR, or Ofgem requirements	Compliance-by-design, encryption, audits, regular assessments
Delivery Risk	Organisational resistance, multi-supplier coordination, schedule slippage	Phased delivery, strong governance, integrated planning
Development Risk	Technical instability from new technologies, integration failures	Automated testing, proof-of-concept phases
Supplier Risk	Uncertainty around supplier capability and integration maturity	Due diligence, clear service level agreements, joint governance, contingency plans
Customer Impact Risk	Disruption to Customer processes during transition	Maintain stable channels, consistent reporting, validate parity before cutover
Operational Risk	Service disruption or downtime	Robust backup, disaster recovery, tested failover mechanisms
Change Management Risk	Resistance to new processes among staff and stakeholders	Engagement, training, clear communication of benefits

11. Glossary

API	Application Programme Interface
AQ	Annual Quantity
AUGE	Allocation of Unidentified Gas Export
BAU	Business as usual
BDP	Big Data Platform
BI	SAP Business Intelligence
BP22	Baseline Business year 2022 costs used to baseline costs for the Efficiency Review
BP23	The CDSP Business Plan for 2023-24
BP24	The CDSP Business Plan for 2024-25
BP25	The CDSP Business Plan for 2025-26
BP26	The CDSP Business Plan for 2026-27
BP27	The CDSP Business Plan for 2027-28
BPIR	Business Plan Information Rules introduced by UNC modification 0841, which was approved by the regulator in June 2024
CAB	Customer Advisory Board
CDSP	As the gas industry's Central Data Service Provider (CDSP), we provide a suite of vital services for gas Suppliers, Shippers and Transporters
CICM	Chartered Institute of Credit Management
ChMC	The DSC Change Management Committee is the elected body of Customer representatives that meet once per month to oversee the delivery of DSC change activity. www.gasgovernance.co.uk/DSC-Change
CoMC	The DSC Contract Management Committee is the elected body of Customer representatives that meet once per month to oversee the day-to-day operation of DSC activity. www.gasgovernance.co.uk/DSC-Contract
CMS	Contact Management System
CPI-H	Consumer Price Index; used as a measure for inflation
CSS	The Central Switching Service
DESNZ	Department for Energy Security and Net Zero
DDP	Data Discovery Platform
DSC	The Data Service Contract is the contract which is constituted by the DSC Agreement, the DSC Terms and Conditions and each of the CDSP Service Documents. DSC+ is the contract with Xoserve's third party suppliers to deliver on behalf of the CDSP.

Efficiency Review	In BP23 we received funding to facilitate a 3rd Party review to assess the extent to which we were delivering value for money CDSP Services. This work concluded in September 2023.
EFT	Enterprise File Transfer
ERIX	The Efficiency Review Implementation in Xoserve
ERP	Enterprise Resource Planning software
FBC	Full Business Case
FES	Future Energy Scenarios, that identifies the potential routes towards Net Zero
FGO	The Funding Governance and Ownership programme
FWACV	Flow Weighted Average Calorific Value
GSI	Global Service Integrator/s
GDPR	General Data Protection Regulation
I&C	Industrial & Commercial
ICS	The Institute of Customer Service
IGT	UNC Independent Gas Transporter Uniform Network Code www.igt-unc.co.uk
Investment	This term covers funding to deliver transformation activity, and further splits into sub categories that are aligned with terminology in the Budget and Charging Methodology: 'Infrastructure' (typically technology-sustaining programmes) and 'Change' (incrementally scoped budgets for Customer usage throughout the business plan period)
ISO	International Standards Organisation
KPM	Performance versus a suite of Key Performance Metrics that show how effective we are at delivering CDSP services are monitored and reported each month to the DSC CoMC
MPRN	Meter Point Reference Number
NDMSP	Non-Daily Metered Service Provider
NESO	National Energy Systems Operator
NISA	National Institute for Standards and Assurance
OBC	Outline Business Case
Ofgem	Office of Gas and Electricity Markets; regulator of the electricity and gas markets in Great Britain
PAFA	Performance Assurance Framework Administrator
PI	Performance versus a suite of Performance Indicators that show how effective we are at delivering CDSP services are monitored and reported each month to the DSC CoMC

PIP	Privacy Improvement Plan
Q	Quarter of the financial year; quarter 1 period is April to June, quarter 2 period is July to September, quarter 3 period is October to December and quarter 4 period is January to March
Q&A	Questions and Answers
Rec Co/RECCo	Retail Energy Code Company www.retailenergycode.co.uk
S&O	Service and Operate costs fund the day-to-day operational activity that is either performed directly by Xoserve, or via one of our outsourcing agreements. S&O is an umbrella term that covers all of the CDSP General Service Areas
S&O Baseline	The Service and Operate costs associated with activities that span business plan years. We use this to measure and report the extent to which like-for-like activity is being economically undertaken across a multi-year period. To do this we apply the same indexation to all historic costs to evaluate whether services are being delivered more or less economically across the period in question
SDS	Strategic Direction Statement; published annually by Ofgem
SAS	Statistical Analysis System
SIP	Security Improvement Plan
SME	Subject Matter Expert
SOC	Strategic Outline Case
SPP	Statement of Planning Principles, which sets out the strategic principles that will guide creation of the Business Plan
The 5Es	We have adopted a framework through which Value for Money can be commonly understood. The 5Es and their relative descriptions are thus: 'Economy' – are costs reasonable, 'Efficiency' – are costs being fully utilised, 'Effectiveness' – are services being delivered effectively versus stated aims (e.g. Key Performance Metrics), 'Equity' – are costs being fairly shared and 'Evolve' – which reflects the need for us to evolve
Totex	Total Expenditure
UKCSI	The UK Customer Satisfaction Index
UK Link M2C	UK Link Move to Cloud programme
UNC	Uniform Network Code www.gasgovernance.co.uk/UNC
VfM	Value for Money
XET	Xoserve Executive Team
XLT	Xoserve Leadership Team
Y, Y+1, Y+2	Year in question; plus, one year from the year in question; plus, two years from the year in question

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