

Schedule 2 (Specification)

3.1 Summary

The scope of the Buyer's requirement is split into four phases (see further detail below):

- Selection Stage (desktop assessments and school/college selection of 47 schools, including at least 1 college from a maximum of 100 per Lot)
- Basket 1 Stage - the delivery of the Basket 1 Deliverables.
- Basket 2 and 3 Stage - the provision of the Basket 2 and (if required) the Basket 3 Deliverables.
- Regional Alliance Feasibility Stage - the delivery of the Regional Alliance Feasibility Deliverables

Suppliers should note that only the Selection Stage, Basket 1 Stage and Regional Alliance Feasibility Stage is guaranteed. The Buyer reserves the right to require the Supplier(s) to provide the Basket 2 and 3 Stage during the Contract Period, and this is part of the procured opportunity, but this is not guaranteed and is subject to budget approval and the Buyer's strategy.

3.2 Policies and Standards

All submissions must reference proposals against RICS Whole Life Carbon Assessment (WLCA) for the built environment (3 Aug 2024) and the UK Net Zero Building Standard.

All works and services should comply with the relevant British Standard and where applicable Buyer specifications, including its Employer's requirements part B: generic design brief.

3.3 The Education Estate

- The education estate is responsible for 37% of all public sector building emissions in England.
- The Buyer estimates the spend on energy will be over £1.7bn in this financial year.
- The school estate in England covers approximately 514 million m2 (circa 127,000 acres).
- Around 24,000 school buildings (around one third) are beyond their estimated initial design life and require significant maintenance and refurbishment.

The condition and cost of maintaining the estate is expected to worsen if not addressed at sufficient scale or speed. Buildings can normally be used beyond their initial design-life with adequate maintenance, but are more expensive to maintain and, on average, have poorer energy efficiency leading to higher running costs, and greater CO2 emissions.

3.4 Stages

Selection Stage

- The Selection Stage (commencing on the Start Date) requires Suppliers to carry out desktop based assessments of Potential Schools and Colleges. The Supplier is to select 47 schools (including at least one college) to receive the Basket 1 Deliverables and, at the sole discretion of the Buyer, the Basket 2 and 3 Deliverables. A long list of a maximum of 100 schools/colleges is to be provided by the Buyer on or around the Start Date. Each Supplier will assess schools/colleges against a minimum set of core criteria to be determined by the

Supplier and agreed by the Buyer prior to selection. The criteria must form a reasonable basis for selecting schools by assessing potential benefit, value for money and deliverability. The Supplier is to produce a Selection Report (together with reasonable supporting evidence) and will, together with the Buyer, select the schools and colleges against this criteria.

- The process to select the schools/colleges is described in more detail in Clause 3.9 of the Contract.
- This Stage is a guaranteed element of the Contract.
- The Supplier is required to deliver the Selection Deliverables within forty-four (44) days of the Start Date (on the basis that the Buyer provides the long list of a maximum 100 schools/colleges on the Start Date).

Basket 1 Stage:

- **Basket 1** contains quick wins with a **payback period of 1-5 years**. The Basket 1 Deliverables are simple, low risk interventions to reduce energy consumption delivered at pace across a batch of schools/colleges for accelerated CO2 reduction. The Basket 1 Stage also includes the delivery of a decarbonisation plan for each school/college, and the collection of sufficient data, including all surveys required to deliver the Basket 2 and 3 Stage. Further detail of the Basket 1 Deliverables is detailed in paragraph 3.7 (Specification – Basket 1 Deliverables) below.
- The Basket 1 Stage commences on completion of the Selection Stage.
- With the exception of Additional Schools and Colleges (see below), the Supplier is required to deliver the Basket 1 Services during, and provide the Basket 1 Deliverables within:
 - six (6) months in respect of all Basket 1 Deliverables with the exception of the Behavioural Change Services;
 - twelve (12) months in respect of the Behavioural Change Services,on and from completion of the Selection Stage.
- This Stage is a guaranteed element of the Contract.
- During the Basket 1 Stage, the Buyer reserves the unilateral right to add up to ten (10) additional schools and colleges to the forty-seven (47) schools (including at least one college) selected pursuant to the Selection Stage (**Additional Schools and/or Colleges**). The Additional Schools and/or Colleges may or may not be on the Potential List of Schools and Colleges (i.e. the long list of a maximum of 100 schools/colleges in each Region provided by the Buyer on or around the Start Date).
- The Charges for Additional Schools and/or Colleges will be calculated in accordance with the Basket 1 Charges Schedule in Schedule 3 (Charges).
- In relation to each Additional School and/or College, the Supplier is required to deliver the Basket 1 Services during, and provide the Basket 1 Deliverables within:
 - six (6) months in respect of all Basket 1 Deliverables with the exception of the Behavioural Change Services;

- twelve (12) months in respect of the Behavioural Change Services,

on and from the date of each written instruction from the Buyer to add an Additional School and/or College to the Contract.

Basket 2 and 3 Stage:

- **Basket 2** includes mitigations with **less than 20-year payback**. These are medium risk interventions which are quick to implement. The installation of Solar PV will be prioritised, however other interventions demonstrating significant cost and energy saving will also be considered.
- **Basket 3** includes all mitigations. These are holistic whole-building retrofit which encompasses a deep building fabric and condition improvement measures along with heat decarbonisation
- Further detail of the Basket 2 and 3 Deliverables is detailed in paragraph 3.8 (Specification – Basket 2 and 3 Deliverables) below.
- This Stage may be required during the Contract Period at the Authority's sole discretion. The Buyer may, at its sole discretion, notify the Supplier to undertake the Basket 2 and (if required) Basket 3 Deliverables.

Regional Alliance Feasibility Stage

The Regional Alliance Feasibility Stage (commencing on the Start Date) requires Suppliers to produce a feasibility report in relation to a new regional condition, decarbonisation and resilience service, further detail of the Regional Alliance Feasibility Deliverables is detailed in paragraph 3.9 (Specification – Regional Alliance Feasibility Deliverables) below.

- This Stage is a guaranteed element of the Contract.
- The Supplier is required to deliver the Regional Alliance Feasibility Deliverables by 31 May 2025.

3.5 Specification – Basket 1 Deliverables

The specification for the Basket 1 Deliverables is set out below. For clarity, the Basket 1 Deliverables are required for each School and College (and reference to Schools and Colleges includes any Additional Schools and/or Colleges for the purposes of this Specification) with an overarching report to summarise the findings:

1. Decarbonisation Plan



Produce a detailed decarbonisation plan in collaboration with the School or Colleges' project lead to develop and agree a strategy and detailed specification for the decarbonisation of each of the Buyer's Premises (the relevant School or College premises) through:

- Producing written decarbonisation plans for each setting, on a block-by-block basis integrating the decarbonisation route map. These reports should include, as a minimum details on:

- Scope of decarbonisation plan and methodology
 - Condition survey and M&E assessment
 - Site plan
 - Existing building services
 - Existing building fabric
 - Energy usage, analysis, benchmarking and existing contract(s)
 - Thermal imaging survey results (to be assessed during colder periods when heating is active)
 - Energy Efficiency measures including housekeeping/ “Quick Wins” and behaviour changes
 - Opportunities for Basket 2 and Basket 3 energy efficiency interventions
 - Opportunities for Basket 2 and Basket 3 energy generation interventions
 - Recommended interventions
 - Forecast energy use with financial impact assessment vs baseline
- Developing a concept design (control option) for each of the proposed interventions, suitable for procuring relevant contractors.
- Delivering feasibility assessments for Basket 2 and Basket 3 Interventions including Solar PV, EV chargers, and battery storage to enhance renewable energy use. Feasibility assessments should consider planning and DNO requirements, and any other relevant statutory obligations.
- Carrying out a block-by-block survey of the existing external fabric of each block using a thermal camera to evaluate the performance gap, including air tightness testing. The requirement to undertake thermal imaging in colder months should not delay the delivery of the Decarbonisation Plans in the required six-month timeframe. If necessary, thermal imaging assessments can be added as an addendum to Decarbonisation Plans once completed, updating any assumptions or associated impacts detailed in the Decarbonisation Plans.
- Assessing the existing electrical, gas, and water supply systems to ensure they meet operational needs.
- Identifying quick-win solutions through improved behaviour, space utilisation and low-cost interventions to deliver immediate energy savings.
- Providing detailed financial analysis of all proposed interventions, including:
 - Detailed costings, including preliminary costs (prelims) and fees
 - Anticipated financial savings and payback periods
 - Anticipated energy (KwH) and CO2 savings
- Summary of the capacity and viability of community use opportunities available at the allocated site to generate an ROI and/or increase space utilisation.

2. Behavioural Change



Implementing programme of behavioural change across the Schools and Colleges. This will include but is not limited to, developing a communications plan, detailed delivery programme, allocating climate ambassadors and integrating the delivery of green skills through:

- Programme for behavioural change including proposed training and teaching resources for teachers/pupils. This should ensure that the change in behaviour is sustainable and maintained for the long term.
- Installation of physical in school display panel(s) and capabilities for real-time carbon metrics informing school behaviour which provide quantitative measurements of the impact of the new behavioural change programmes implemented.
- Building management systems training by qualified engineers with supporting user guide.
- Dashboarding and 'live monitor' results of behavioural change programme including providing evidence, outcomes and evaluations of each session.
- Deliver project-based learning in partnership with appointed contractors e.g. demonstrations of decarbonisation technologies in science lessons with measurable outcomes agreed with teaching staff Linking with the Buyer/ University of Reading Climate Ambassador network, Buyer Nature Park and other Buyer and public sector sustainability initiatives as appropriate.
- Design and deliver school focused communications plan to engage with stakeholders including teachers, governors and wider school/college community.
- Development of a climate action plan in collaboration with School/College staff and the appointment of a sustainability champion.

3. Optimise Controls



Optimising existing building controls including but not limited to, inspection and performance tuning of existing systems by qualified engineer, production of existing system diagrams, condition surveys. This includes light maintenance of inefficient/broken systems through:

- Appointing an appropriate engineer to carry out service / review of existing control service.
- Delivering system control training to appointed building manager, and make available digital recordings for onward sharing within School or College Entity.
- Optimising to ensure that existing system is running efficiently, to include undertaking minor repairs/ light maintenance.
- Providing a detailed report on existing condition and changes implemented.
- Ensuring that all existing warranties remain valid and are not voided.
- Ensuring that all Work is undertaken in collaboration with existing facilities management contracts.

4. Energy Procurement / Community Energy



Assessing of existing energy contracts including existing contractual commitment and market pricing assumptions through:

- Obtaining the energy contract information for each School and College including energy bills for the last three years. Summarise findings in a report which includes a market assessment and proposals for generating efficiency through the procurement of energy.
- Liaise with the Buyer commercial team and other relevant government authorities on the development of community energy initiatives.

5. Data Collection

Energy

- Obtain all consumption and meter data for all buildings and share data with the Buyer. Including: meter and supply locations type, location, MPAN/MPRN, Kwh rates, capacity, NEC and power factor.
- Obtain all data relating to any existing on-site renewables (e.g. solar PV), lighting installations (e.g. LED lighting) and EV charge points.
- Ensure that all metering can deliver half-hourly readings through additional addressable sensors or switching to smart meters. Where smart meters are not yet installed, provide for the installation of new meters to facilitate detailed data capture. Install sub-meters at all metering locations to provide half-hourly meter readings to facilitate informed decision making.
- Provide/ undertake energy audit of each the Buyer's Premises.
- Provide a cloud based addressable platform which can be accessed by project stakeholders including the Buyer to assess and monitor energy performance measures.

Finance

- Obtain all relevant information relating to each School and College/ School or College Entity financial position, including SCA/ DFC profile(s) and details of reserves.
- Obtain details of any existing leases (finance or operating) for existing equipment and/or renewable or energy efficiency installations.

ICT

- Provide/ undertake audit of ICT strategy including asset register to identify potential for energy efficiency opportunities.
- Work with the Buyer's ICT team to develop an energy efficient ICT strategy.

Land and Buildings

- Produce up to date existing site plans in a digital format, redline plans and obtain details of site freehold/ leasehold ownership, including title plans.
- Obtain / provide details of the Buyer's Premises occupancy levels (net capacity assessment).
- Produce a planning assessment of the site and advise on planning requirements for implementation of recommended Basket 2 and Basket 3 Interventions detailed in the Decarbonisation Plans.
- Provide an assessment of all other statutory requirements, including DNO connection requirements, for recommended Basket 2 and Basket 3 Interventions detailed in the Decarbonisation Plan.
- Produce an opportunities/ constraints plan relating to development of each of the Buyer's Premises, including any listed buildings, conservation areas, flood zones etc (1:500).
- Provide an assessment of each of the Buyer's Premises to determine potential surplus under Buyer playing field guidance.
- Where available and can be provided at no additional cost, provide copies of any other plans, including where appropriate, structural surveys.
- Obtain latest CDC survey data.
- Undertake/ provide detailed condition survey including costing of proposed maintenance requirements.
- Undertake/ provide buildings Thermal Modelling to provide a simulation that can demonstrate the climatic performance each building and it how it will vary from room to room, day and night and through the seasons in a 3D simulation.
- Perform solar irradiance of each of the Buyer's Premises analysis to determine potential Solar PV energy generation. This analysis should consider shading and obstruction factors including neighbouring buildings and trees.

5. BIM

- Provision of interoperable (IFC-SPF) Building Information Model (BIM) for each block and surrounding curtilage land. Model shall be geolocated.
- Model shall be representative of building form and internal layouts and based on dimensions captured from on-site surveys.
- Models shall contain all accessible components throughout building (e.g. Building Services Plant/Equipment, Doors/Windows).
- Models shall embed standard attributes and properties against entities.
- Models shall embed non-standard properties against entities such as condition, construction type and thermal properties (custom property mapping to be agreed with the Buyer prior to appointment) Models shall not be Photogrammetry (360 Scans) or Point Cloud models and must include 3D geometrical representation.
- Project information standard should be aligned to ISO 19650.
- Site survey and modelling tolerances to be agreed with the Buyer. The Buyer shall be provided with models, data visualisation dashboards (including connected datasets) and any applicable documentation required to transpose IFC into dashboard.
- BIM shall embed information and data (where applicable) for use in designing and monitoring Basket 2 and Basket 3 Decarbonisation Interventions
- The Supplier shall provide an irrevocable, royalty free, non-exclusive licence to the Authority and any responsible body (site owner) to use, amend and reproduce such documents for all purposes connected to delivery of Works, and/or extension, operation, management and/or maintenance of the same. The Buyer will also require use of all survey and scheme data for school condition data collection (including future

surveys), building performance evaluation, and statistical, publication and research purposes, connected to management of the education estate.

6. Social Value

- Develop and deliver a programme of community outreach sharing the benefits of clean energy and the opportunity with local community.
- Facilitate the development and support of education and careers opportunities through offering work experience placements, apprenticeships and teach-in days throughout the delivery of the programme for learners within the participating Schools/ Colleges who may express an interest in the programme.
- Collaborate with the Buyer on the delivery of training/teaching and development opportunities as required.

7. Quality Assurance

Delivery Partners shall undertake the Basket 1 Deliverables whilst ensuring 'best in class' quality assurance measures are in place. This should include:

- Implementation of long-term monitoring systems.
- Providing consistent and verifiable evidence of savings against targets/forecasts.
- Appropriate management of CDM and HSE requirements.
- Suitable verification of completion of all Works.
- Fortnightly reporting to the Buyer to provide updates on key project metrics.
- Arrange and attend fortnightly Progress Meetings with all key project stakeholders from the responsible bodies.

Note: where items (e.g. surveys) are already provided as part of this Specification or are available from the School or College or School or College Entity directly, there is no need to redo them, provided they are of sufficient quality.

3.6 Specification - Basket 2 and 3 Services

The specification for the Basket 2 and 3 Services is set out below. The Buyer will, at its sole discretion, notify the Supplier to undertake the Basket 2 and, if required, Basket 3 Deliverables (the Works) following the completion of the Basket 1 Deliverables.

Grant funding applications

Where relevant and appropriate, the Supplier will prepare grant funding applications to Salix/ Public Sector Decarbonisation Scheme (or similar) to secure additional capital funding for the proposed Basket 2 and/or Basket 3 Interventions.

Procurement management:

The Supplier shall be responsible for managing the procurement of suitable contractors on behalf of the responsible body/School or College Entity. In particular the Supplier shall be responsible for:

- Identifying and providing a recommendation for a suitable procurement route for the proposed interventions, taking 'framework first' approach to the procurement.
- Preparation and issuing of tender documentation, including an invitation to tender, suitable specification(s) and technical documents.
- Liaising with tenderers throughout the procurement, responding to clarification

- questions as required.
- Analysing the tender returns and providing a recommendation report to the Buyer and the responsible body(ies)/School or College Entities.
- Ensuring compliance with relevant public procurement regulations throughout.

Reporting Requirements

- Arrange and attend weekly Progress Meetings with project stakeholders.
- Ensure regular and timely distribution of Progress Reports including reporting on key decisions and actions.
- Provide weekly programmatic updates demonstrating progress against key gateways and milestones.
- Provide and update the programme risk register (an open record) to be updated continually) including Construction Design & Management (CDM) issues.

School Engagement

The Supplier shall be responsible for:

- Leading engagement meetings for each Stage and in accordance with the stakeholder map produced by the Supplier
- Managing the relevant School/ College's input including supporting buy-in and agreement with 'Basket 2' and 'Basket 3' proposals
- Liaising with suppliers/contractors appointed to deliver 'Basket 2' or 'Basket 3' Interventions by the relevant School/ College.

Project Management / Contract Administration

- Where required, prepare the contract documents for the Works (the Works Contract).
- Act as Contract Administrator/Employers' Agent under the terms of the Works Contract. Administer the terms of the Works Contract, including dealing with the Works contractor's applications for interim and final payments and certifying amounts due, negotiating valuation of any variations to the works, dealing with applications for extensions of time and/or additional costs, issuing instructions to the Works contractor, receiving or issuing approvals, instructions, notices, requests or statements.
- Preparation of pre-tender estimate based on approved scheme.
- Act as the single point of contact between the Buyer, the relevant School or College and the Works contractor.
- The Supplier is required to oversee and assist in applying for and securing appropriate planning and other statutory approvals including DNO applications required for the Works. If required by the Buyer, the Supplier will secure planning, prior approval or any other necessary statutory consent prior to appointment of the Works Contract.
- Receive information, requests, and instructions from the relevant School or College, and (subject to approval by the Buyer where required) issue the same information, requests and instructions to the Works contractor.
- Ensure that Works that are carried out are compliant with The Construction (Design and Management) Regulations 2015 as amended. The Suppliers are to carry out a regular Health and Safety inspections and to provide a Health and Safety report to the Buyer.
- Certify practical completion of the Works in accordance with the terms of the Works Contract and prepare a schedule of any snagging items/minor defects to append to the certificate.

Quality Assurance

- Attend any testing and/or commissioning of the Works and review any test results as required.
- Visit the site to inspect works on a regular basis, and advise the contractor of any non-compliance regarding the progress of the Works and the general quality of the Works.
- Prepare a schedule of expected product guarantees and collateral warranties and manage the issue of these with the Works contractor, prior to practical completion.
- Attend site when necessary, during the defects liability period to review any defects that may have arisen after practical completion and agree with the Works contractor proposals for rectification.
- At the end of the defect's liability period, prepare a final list of defects and subsequently check and certify that the defects list has been complied with in accordance with the Works Contract.
- Continually monitor the performance of the Basket 2 and/or 3 Interventions and provide monthly reporting to the Buyer and the relevant School or College.
- Complete a post completion review specified to ensure that the scheme is operating as designed.

3.7 Regional Alliance Feasibility Deliverables

Feasibility Report/Business Case Analysis of a New Regional Condition, Decarbonisation and Resilience Service

Each of the three Lots will be required to produce a feasibility report by 31 May 2025 for the Buyer that provides a full economic business case for how a regional condition, decarbonisation and resilience service could operate, be funded and add value to the existing processes and support services available to responsible bodies for their estate management.

Purpose of the feasibility report

The Buyer keeps its approach to supporting the school estate and capital funding under review. To inform wider thinking, it would be interested in understanding the potential for a regional model, partnering with alliances to provide services such as data collection, supporting responsible bodies and the Buyer to better understand the needs of the estate, and supporting effective and efficient allocation of available capital funding to achieve policy aims. The range of services an alliance in each region might provide include data collection, intervention prioritisation recommendations, procurement frameworks, alongside professional services for related interventions/projects, estate management (including condition works) and decarbonisation activity in regions.

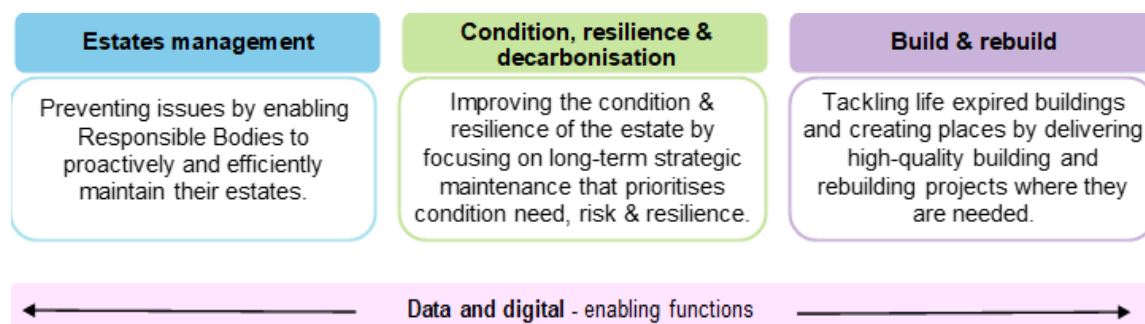
The Buyer would therefore like successful partners to produce a report on the feasibility and operationalisation of a potential model(s), including what these models could look like, analysis of options for each function, recommendations for operating model, and resource requirements and costs to operate at full maturity/capacity. This should include consultation (in confidence) with key stakeholders in agreement with the Buyer.

Alongside a final report, we would expect engagement at regular intervals with the Buyer's policy development teams, including with key external stakeholders.

The education estates service offer

The report is to include consideration of how such a service can complement the developing Buyer Education Estates strategy framework, underpinned by the education estates service offer that brings programmes together in a way that is accessible for the sector organised under three pillars as below.

The regional service will operate in the 'space of' the middle pillar "condition, resilience and decarbonisation."



The service offer continues to be developed, and further detail will be provided to successful partners.

The feasibility report on the development of the regional condition, resilience and decarbonisation services will need to consider how it could interact with the other two pillars, existing regional services (and it is assumed there will be nine regions, mirroring the existing Buyer regional delineations), the variety of responsible bodies including Academies and Local Authorities and also consider:

- How such a service could make best use of existing condition and decarbonisation funding streams to ensure that a proactive and preventative approach is taken to building deterioration and resilience to climate change and other risks.
- What project management, technical services, procurement advice, capital advisory services etc. will add value, including consideration of what might be government grant funded services and what responsible bodies may wish to use their reserves to draw on as required or what might be funded by private finance and regional initiatives.
- How the use of data and digital tools can add value to effective estate management, including how such data can be collected, add value at responsible body level to estate management functions and can interoperate with the Buyer developing service line and their data collection and storage requirements.
- How existing programmes operating in this space such as the net zero accelerator service can be incorporated and enhance the service offer.
- How private finance and other sources of funding at regional and national level can be incorporated to enhance the service offer.
- What minimum service level offer will be provided and what additional services regional providers may choose to offer subject to funding/demand from regional responsible bodies.
- What communication, stakeholder and networking services any regional service must undertake to ensure that the region is supported and feels engaged in decision making on service offers and any prioritisation of interventions/funding.
- How such a regional service can best collaborate with regional construction programmes, apprenticeships, and further education colleges to help grow the construction skill and workforce base in the region.
- How could the regional service help to provide advice to responsible bodies, helping them to manage their estates more effectively.
- What administrative and other functions would be needed at regional level to operate the service and what national oversight is needed across all nine regions to ensure best oversight of services/contractors as well as meet accounting and reporting requirements.

- What performance management, quality assurance and KPI regimes needs to underpin the oversight of each regional delivery partner.

Methodology

The report will need to include:

a full economic and business case analysis of how such a service could operate such that it could pass scrutiny by any approval board to consider:

- a full economic and business case analysis of how such a service would operate such that it can pass scrutiny by any approval board to consider whether to launch and fund such a service. This must include analysis of operating costs and how services may be funded (including what assumptions are made re government grants schemes and funds held at regional and responsible body level). It is assumed the contractor will need to deploy specialist analytical skills to undertake this work.
- A value for money case about how a regional service will add value compared to existing services or other possible configurations.
- A detailed analysis of costs and sources of funding for operating such a service, how the services it offers can be funded and how this might transition and mature over the first five years, including any role for private finance.

The contractor may also be required to work with the Buyer on sourcing input and presenting interim and final findings to various stakeholders to inform the report.

The Buyer will make the findings of the report available to any future bidders for such a service and possibly wider stakeholders or publicly as it determines. The reports will be owned by the Buyer.

Products

- A report that provides a robust business case analysis for establishing such a service
- A delivery plan for how such a service could be established and how it might mature over its first five years.
- How potential transition to this approach impacts existing programmes.
- A risk and mitigations register and cost plan.

Programme

The requirement is to deliver the Deliverables in respect of each of the Stages by the date set out this Specification.

Annex

Buyer Responses to Clarification Questions on the Specification