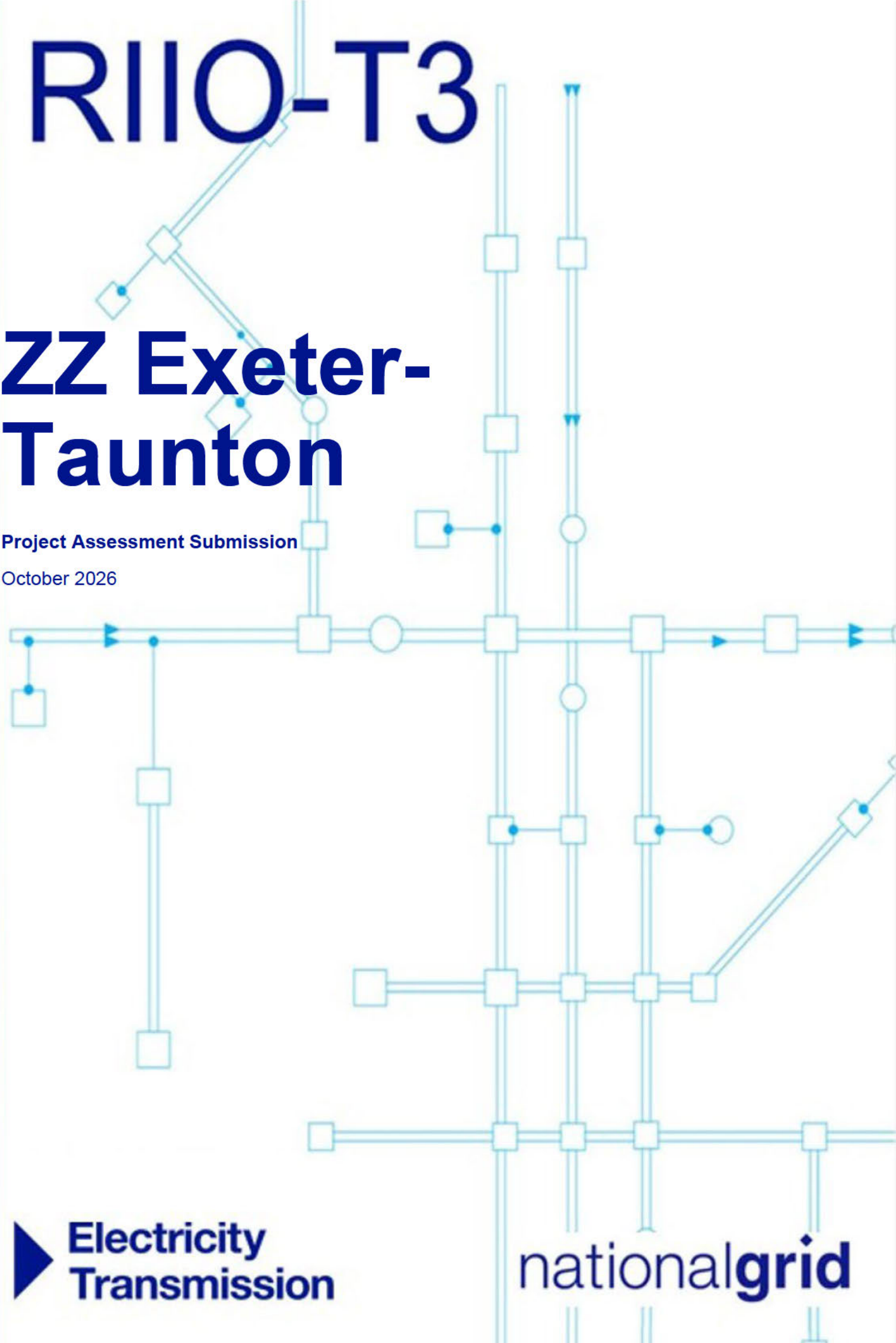
RIIO-T3

ZZ Exeter-Taunton

Project Assessment Submission

October 2026



Electricity Transmission

nationalgrid

Contents

Reference and summary table v

Executive summary vii

1. Introduction 1

1.1 Context 1

1.2 Drivers 1
Primary driver – Increasing SC1 boundary capability 1
Secondary driver – Asset health opportunity 2
Strategic and deliverability considerations 2

1.3 Output of the investment 3
Output of the investment 3

1.4 Changes since earlier regulatory submission 4
Conductor type 4
Project driver 5
Foundation and tower strengthening works 5
Transducer/protection upgrades 6

1.5 Cost 6

1.6 Risk approach 6

2. Detailed developments 8

2.1 Conductor Selection 11

2.2 Investment Driver and Strategic Need 12

2.3 Foundation and Steelwork Scope 14

2.4 Transducer and Protection Upgrades 15

2.5 Construction works 15

2.6 Land and consents 16

3. Costs 18

3.1 Investment costs 18
Cost movement since the EJP 18
Cost assurance 20

3.2 Cost drivers 22
Free issuing of conductor 23
Contractor costs 24
National Grid portfolio costs 26

3.3 Updated cost benefit analysis 26

3.4 Benchmarking 27

3.5 Risk 29
Risk identification 29
Quantitative risk analysis 31
Quantitative Schedule Risk Assessment (QSRA) 32

Quantitative Cost Risk Assessment (QCRA) 32
Top 5 Quantified Discrete Project Risks by Cost-Factored EMV 33
COAE and High Impact Low Probability risk approach 34
Risk benchmarking 35
3.6 Ongoing efficiency and Real Price Effects 36
Ongoing Efficiency (OE) 36
Real Price Effects (RPEs) 37
4. Deliverability and procurement 39
4.1 Delivery strategy 39
4.2 Programme structure and milestones 40
Project Delivery Date 41
P50 Delivery Date 41
Critical path 43
Programme risk mitigation 43
4.3 Supply chain capacity and outage planning 44
Supply chain Capacity 44
Outage planning 45
4.4 Procurement 46
5. Conclusion 48
Appendix A Glossary A1
Appendix B Location B1
Appendix C Design C1
Appendix D Construction D1
Construction status and approach D1
Mobilisation and site establishment D1
Surveys, investigations and design D2
Access and enabling works D2
Emergency Return to Service (ERTS) methodology D2
Third-party crossings and earth-wire protection methodology D3
Reinstatement, final records and completion D3
Appendix E Land strategy and consent E1
Land rights strategy and delivery approach E1
Temporary rights E2
Permanent rights E3
Progress of land rights transactions E3
Consents E4
Other works E4
Secondary consents E4
Appendix F Delivery strategy F1
Delivery philosophy F1
Our programme management strategy F3
Stakeholder Management F4
Interface Management F4

Risk Management Strategy F5
Risk ownership and allocation F5
Process and assurance F6
Programme prolongation F6
Mitigation for programme prolongation F6

Appendix G Cost model G1

Appendix H Cost assurance H1

Challenge and validation of cost built-up H1
Visibility of quotations and supply chain assurance H2
Risk scrutiny and redaction of embedded contingency H2
Demonstratable cost reduction achieved H3
Conclusion H3

Appendix I National Grid costs I1

Appendix J Cost benefit analysis J1

Appendix K Programme timelines K1

Appendix L Benchmarking L1

Appendix M Risk register M1

Appendix N P6 programme N1

Appendix O Procurement O1

Route to market and allocation O2
Procurement strategy O4
Timescales O7
Tender outcome O8
Procurement activities O8

Appendix P RRP tables P1

List of Figures

Figure 1: Transmission route map 4
Figure 2: Design of L2 D Towers 9
Figure 3: Design of L2 D60 Towers 10
Figure 4: Map and Layout of the OHL Connection 11
Figure 5: OHL ZZ Exeter-Taunton cost evolution EJP to PA 19
Figure 6: Overall Benchmarking Findings Summary 28
Figure 7: Key risk themes for ZZ Exeter-Taunton by contingency values (23/24 prices) 30
Figure 8: Delivery team structure 40
Figure 9: Project location - transmission route map B1
Figure 10: Project location - road map B2
Figure 11: CDM plan of Shurton substation D4
Figure 12: CDM plan of Taunton substation D5
Figure 13: CDM plan of Exeter substation D6
Figure 14: Project land rights required E1
Figure 15: Programme plan for preferred solution K2
Figure 16: National Grid procurement approach O2
Figure 17: NEC4 option differences O4

List of tables

Table 1: Cost breakdown summary (23/24 prices) 6
Table 2: ZZ Exeter-Taunton risk allowance inputs 6
Table 3: Detailed development highlights 8
Table 4: ZZ Exeter-Taunton OHL Asset Health Summary 14
Table 5: Costs headlines 18
Table 6: Overall project cost summary(£m, 23/24 prices) 21
Table 7: Cost drivers for each cost category 22
Table 8: Conductor free issue 23
Table 9: Main works contractor 24
Table 10: Third party costs 25
Table 11: Lifetime CBA by price control period (23/24 base prices, central carbon pricing, discounted values) 27
Table 12: Risk Headlines 29
Table 13: Key risk themes identified for ZZ Exeter-Taunton 30
Table 14: QSRA summary against the deterministic programme forecast of [redacted] 32
Table 15: QCRA summary results (£m, 23/24 prices) 33
Table 16: Key project risks for ZZ Exeter-Taunton – top 5 by cost-factored current EMV, 23/24 prices 33
Table 17: Deliverability and procurement headlines 39
Table 18: Project delivery dates 41
Table 19: Planned Outage Windows and Durations 45
Table 20: Table of abbreviations and definitions A1
Table 21: Temporary interests E2
Table 22: Permanent rights E3
Table 23: Other works consenting position E4
Table 24: ZZ Exeter-Taunton organisational structure F1
Table 25: [redacted] O3
Table 26: [redacted] O4
Table 27: Procurement approach for ZZ Exeter-Taunton O6
Table 28: Key deliverables by Single-Stage Design and Build O6
Table 29: Procurement process timeline O7

Reference and summary table

Field	Description
Project Name	ZZ Exeter-Taunton
TO's preferred re-opener track	Project Assessment (PA). The project need was confirmed at RIIO-T3 Final Determinations and, at February 2026 Load Board, Ofgem indicated that the near-term OHL schemes affected by the withdrawal of [redacted] type registration could proceed to PA, subject to confirmation outside the meeting.
RRP reference	NGT500096
BPDT / Scheme Reference Number	NGT500096
Load Board Reference	NGT500096
Investment driver(s)	System operability and compliance. The project restores SQSS-compliant boundary capability on the SC1 boundary as forecast transfers across the route increase, supporting contracted and anticipated generation connections in the South West. Associated OHL fittings already classified as high and very high risk are replaced within the same works, avoiding a separate future asset-health intervention.
Project outputs	Reconductoring of the existing 400kV ZZ overhead line route [redacted]) conductor across [redacted] towers, including replacement of associated fittings and [redacted], targeted foundation, steelwork and protection works, delivering [redacted]
PASE alignment	PASE Primary Option; [redacted] was selected as the highest-rated type-registered conductor available at optioneering stage
Costs (23/24 prices)	Total Project Cost: [redacted] CAI UIOLI funding: [redacted] Total Allowance Request: [redacted]
Delivery year	[redacted]
Applicable reporting tables	[redacted]
Interactive projects	The Exeter-Shurton-Taunton (ZZ) OHL circuit interacts with several projects in the area:

Field	Description
	[redacted] The OHL reconductoring also enables other projects relating to the Southwest strategy to connect through the capacity it delivers.
Historic funding interaction	Our Fixed Asset Register indicates an estimate of spend using our statutory Fixed Asset Register of [redacted] for interventions (excluding maintenance and inspections) on various assets on the Exeter-Shurton-Taunton (ZZ) OHL circuit in RIIO-ET2, with an estimated remaining Regulated Asset Value (RAV) of [redacted]. Through the tCSNP2 project framework, the ZZ reinforcement (referenced in tCSNP2 as THRE, Hinkley point-Taunton reconductoring) was included in the Development Track and formed part of the portfolio that qualified for funding of [redacted] No PCF or baseline funding has been provided for the scope in this PA.
Spend apportionment	**T2 (FY -2022-2026)** / **T3 (FY -2027-2031)** / **T4+ (FY -2032-2037+)** [redacted] / [redacted] / [redacted]

Executive summary

Project summary

Exeter-Taunton will reconductor the Exeter-Shurton-Taunton (ZZ) 400 kV overhead line (OHL), comprising the Exeter-Taunton and Shurton-Taunton sections of the route (referred to throughout this submission as “ZZ Exeter-Taunton”). Together, these works form the Shurton-Taunton-Exeter reinforcement identified through the Transitional Centralised Strategic Network Plan 2 (tCSNP2) to provide additional capacity across the B13 and SC1 boundaries. The project will replace the existing conductor system while reusing the existing transmission corridor, towers, foundations and land rights.

The reinforcement increases circuit capability to address forecast thermal constraints and maintain Security and Quality of Supply Standard (SQSS) compliance as generation connections and power transfers across the South West increase. Delivery is planned within the secured [redacted] outage windows, ahead of the identified 2032 network requirement.

Submission purpose

To seek Ofgem’s Project Assessment Decision for the ZZ Exeter-Taunton 400kV OHL reconductoring investment under Special Licence Condition 3.18 (Load Re-opener and Price Control Deliverable), submitted in accordance with Ofgem’s RIIO-ET3 Load Related Reopener Guidance. The submission follows the Engineering Justification Paper (EJP) submitted in February 2025, with need subsequently confirmed at RIIO-T3 Final Determinations. Following the February 2026 Load Board, NGET has progressed the project directly to PA and forms the final element of the RIIO-T3 Load Related Reopener submission for this investment. The submission provides:

- A summary of material changes since EJP submission,
- Evidence that the preferred technical solution remains appropriate and efficient,
- A final view of costs, risks and benchmarking,
- A description and justification of the procurement and delivery strategy.

Description of the investment

Reconductoring of the ZZ Exeter-Taunton 400 kV OHL, replacing the existing [redacted] with [redacted] conductors operating at [redacted] across four circuits. The scope includes replacement of associated OHL fittings and conductor hardware, installation of new Optical Ground Wire (OPGW), and targeted foundation and steelwork works, while retaining the existing towers, transmission corridor and land rights. The reconductoring will provide a winter post-fault circuit capability of [redacted].

Main changes since the EJP submission

Since submission of the February 2025 EJP, the project has progressed through design development, updated network planning and delivery planning, resulting in material but justified

developments. The preferred solution remains the reconductoring of the ZZ Exeter-Taunton OHL route, and these changes are consistent with normal project development.

As evidenced in this submission, they refine the design and strengthen the need case without undermining the consumer or system case established at EJP. These changes include:

- Conductor type – change from [redacted] driven by withdrawal of Type Registration for [redacted]
- Project driver – primary driver refined to increasing SC1 boundary capability, with customer connections now a supporting driver.
- Foundation works – greater design clarity since EJP, with a route-specific engineering assessment (replacing the earlier generic portfolio estimate of [redacted] upgrades)

[redacted]

the uprated circuit ratings. This is a consequential change arising from the [redacted] uprating, with limited incremental cost and overall efficiencies achieved by undertaking the works within the planned reconductoring programme.

At the February 2026 Load Board, the default position was that the near-term OHL schemes affected by the withdrawal [redacted] Type Registration could proceed directly to PA, subject to confirmation outside the meeting. NGET has progressed ZZ Exeter-Taunton on this basis.

Costs, risk and value for consumers

The total project cost is [redacted] (23/24 prices), including a PMean risk allowance of [redacted]. Risks allocated to [redacted] are priced within the [redacted] and excluded from this allowance, avoiding double counting. The cost has increased since the February 2025 EJP as generic portfolio assumptions have been replaced by route-specific engineering, market-tested contractor costs and quantified project risk. The change to [redacted] conductor reduced the comparable conductor solution cost in isolation.

There is a high degree of cost certainty, with [redacted] of total project costs fixed or agreed as re-measurable. Costs have been tested through open-book challenge of [redacted] cost, comparison with National Grid's independent estimate, formal Tender Queries, internal cost assurance and benchmarking.

Costs are efficient and proportionate because:

- The works are being delivered through National Grid's competitively established [redacted], with [redacted] selected through the [redacted] based on its ability to resource all four route sections within the planned outage windows;
- [redacted] cost was tested through open-book review and formal commercial challenge;
- The conductor was [redacted] and will be [redacted];
- The [redacted] arrangement incentivises efficient delivery through its [redacted]; and
- Benchmarking and cost assurance support the efficiency of the submitted cost.

The updated Cost Benefit Analysis (CBA) confirms [redacted] is the preferred and lower-cost option against the assessed alternative. Consumer value is also supported by reusing the existing towers and transmission corridor, coordinating the reconductoring and fittings replacement within one programme, and delivering the required network capability through the planned [redacted] outage sequence.

Procurement and delivery strategy

ZZ Exeter-Taunton is being delivered through [redacted] established through open competitive tender with contractors appointed against technical, commercial and delivery competency criteria.

[redacted] was appointed through a [redacted] contractors. Contractors were invited to confirm their capacity, capability project preferences and potential efficiencies, including geographic proximity and links with other projects. Following this assessment, [redacted] was selected as the [redacted] delivery partner, based on its ability to resource all four route sections within the secure outage windows.

[redacted] was subject to open-book challenge against National Grid's independent estimate through the Tender Query (TQ) process. The conductor [redacted]

The works are delivered through a single-stage design and build [redacted] supporting collaborative and efficient delivery. Overall, [redacted] of project costs are fixed or agreed re-measurable. Delivery is also aligned with National Grid's internal governance frameworks, protecting the secured outage windows and providing transparent management of cost and delivery risk.

Benchmarking and efficiency assurance

Our benchmarking analysis demonstrates that ZZ Exeter–Taunton's costs are comparable to similar overhead line reconductoring projects of equivalent scope and complexity. Together with the cost assurance activities undertaken—including supplier engagement, internal challenge and validation of the cost build-up—this provides confidence that the allowance request is in line with industry norms and represents efficient expenditure and good value for consumers.

1. Introduction

1.1 Context

This Project Assessment (PA) submission forms the final element of National Grid's RIIO-T3 Load Related Reopener submission for the reconductoring of the ZZ Exeter-Taunton OHL circuit. The submission seeks Ofgem's approval of the allowance requested to deliver the project and its associated outputs.

The project is required to address forecast thermal overloads on the ZZ Exeter-Taunton 400 kV OHL circuit resulting from increasing generation connections and power transfers in the South West region. The investment will maintain SQSS-compliant network capability, facilitate the timely connection of contracted customers and enable power transfers required to support the export of renewable generation from the region.

Since submission of the EJP in February 2025, the project has continued to progress through design development, delivery planning and stakeholder engagement activities. This PA sets out the latest project scope, delivery arrangements, cost position, risk profile and supporting justification for the preferred solution, including any material developments since the EJP submission.

This submission is made under Special Licence Condition 3.18 (Load Re-opener and Price Control Deliverable) and in accordance with Ofgem's RIIO-ET3 Load Related Reopener Guidance. The submission provides evidence of the continuing need for the project, the efficiency of the requested costs, the proposed delivery strategy, procurement approach, risk management arrangements and the consumer benefits associated with the investment, to support Ofgem's assessment of the requested allowance.

1.2 Drivers

The ZZ Exeter-Taunton investment is required to increase transfer capability on the ZZ Exeter-Taunton OHL circuit, maintaining compliance with the Security and Quality of Supply Standard (SQSS) as generation and power transfers across the South West increase. The key drivers are set out below.

Primary driver – Increasing SC1 boundary capability

Assessment of multiple network planning scenarios – Clean Power 2030 (CP2030), the tCSNP2 Refresh and Connection Reform – indicates a clear and consistent requirement to reinforce the ZZ route (identified in tCSNP2 as THRE) by 2032. The ZZ Exeter-Taunton project formed the assumed baseline reinforcement for the tCSNP2 Refresh assessment, rather than being identified through that process as a new or alternative solution. The Refresh confirmed a firm requirement for the additional transfer capability from 2032 (Year 9) onwards, supporting the continued need for, and strategic alignment of, the proposed investment.

This requirement is driven by the combination of two Hinkley Point C units in service, high generation in the South West, and IFA2 and the future FAB Link interconnector exporting at full capacity. Under these conditions, the resulting transfer requirements exceed the capability of the existing Shurton-Taunton circuits under N-1 contingency conditions, and the primary driver for the investment is therefore an increase in SC1 boundary capability.

The need remains valid at Project Assessment stage, with network planning assessments and forecast power flow studies continuing to demonstrate the requirement for additional transfer capability on the route. This provides a consistent line of sight between the established network need, the baseline reinforcement assumed in the latest tCSNP2 Refresh and the scope presented within this Project Assessment.

Secondary driver – Asset health opportunity

The ZZ Exeter-Taunton OHL circuit was originally constructed in 1960/62 and is currently strung with [redacted]. The condition of the existing conductor does not in itself warrant reconductoring; the primary investment driver is the additional network capacity required. However, associated OHL fittings include assets classified as high and very high risk, as set out in Table 4. Coordinating their replacement with the load-related reconductoring avoids a future standalone asset-health intervention and additional outage requirements, providing long-term value for consumers.

No RIIO-T3 baseline funding, Pre-Construction Funding (PCF) or separate non-load allowance has been provided for the scope included in the PA. The costs requested are therefore not double funded. NGET sought Pre-Construction Funding (PCF) for the project through the RIIO-T3 process. No PCF allowance was awarded, and NGET subsequently raised this position through the Final Draft Questions (FDQ) and the licence process. At the February 2026 Load Board, Ofgem indicated that, subject to confirmation outside the meeting, the near-term OHL schemes affected by the withdrawal of [redacted] type registration could proceed directly to Project Assessment. NGET has therefore progressed ZZ Exeter–Taunton to Project Assessment and included the efficient project costs incurred and forecast within this submission.

Strategic and deliverability considerations

The project was identified through both the Transmission Works Review (TWR), National Grid Electricity Transmission's (NGET) internal process for coordinating, prioritising and planning the future transmission works programme, and the tCSNP2 process as a required reinforcement within the South West network strategy. It also formed the assumed baseline reinforcement within the latest tCSNP2 Refresh, demonstrating that the proposed investment remains aligned with the most recent strategic network planning assessment.

The project contributes to a future-proofed network capable of supporting continued generation and demand growth through the 2030s. Beyond the immediate requirement, the preferred solution provides additional network headroom that enhances resilience and supports future generation growth.

The delivery dates in this PA are based on the contracted [redacted] programme, the [redacted] outages planned with NESO and the QSRA. They give energisation readiness in [redacted]. The EJP identified a need from [redacted], driven by the pre-fault overloads forecast in the 2023 TWR, and planned delivery ahead of the 2031 tCSNP2 earliest optimal delivery date to meet customer need and secure contractor resource. The Current programme updates that position. Delivering now remains the least-regrets option. Deferral would postpone the expenditure rather than avoid it, and it would increase the risk that the capability isn't available when needed:

- OHL construction resource is heavily committed across the NGET portfolio, and is already committed to at least 2033.
- The project requires long-duration, continuous system access, and outage availability is itself constrained over this period.
- The current outage windows were only made deliverable through winter working and ERTS, developed with [redacted], difficult to replicate matching contractor resource and system access again at a later date.

1.3 Output of the investment

Output of the investment

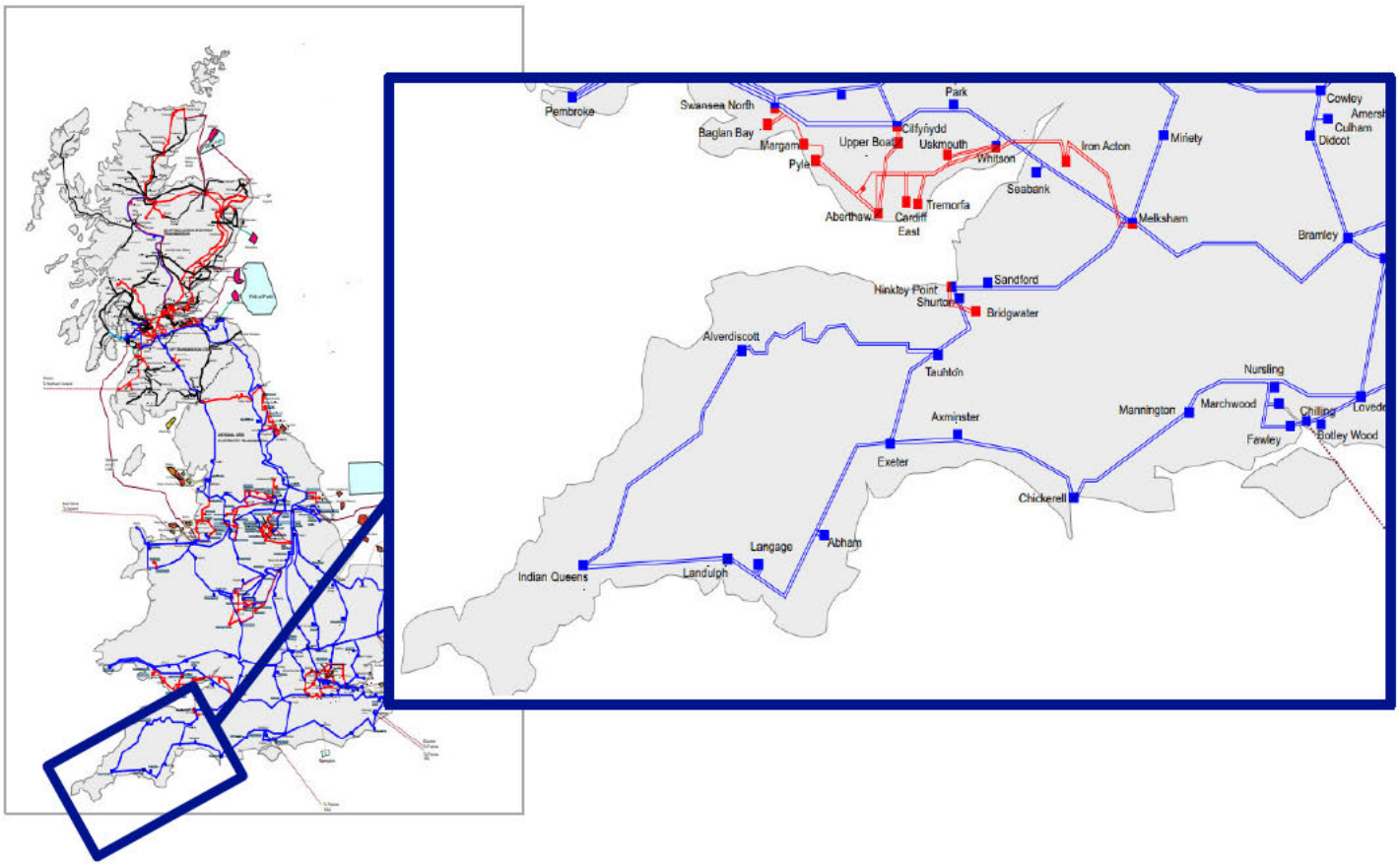
The main investment outputs that will be delivered are:

- Reconductoring of the ZZ Exeter-Taunton OHL circuit through replacement of the existing [redacted] with [redacted] conductors operating at [redacted]
- Replacement of associated OHL fittings and conductor hardware as part of a full refurbishment of the route, including fittings currently classified as high and very high risk.
- Installation of a new OPGW across the route to replace the existing earth wire and enhance operational capability.
- Targeted foundation upgrades at [redacted] tower locations, together with tower steelwork strengthening identified through route-specific structural assessment. The strengthening comprises localised bracing and member replacement required to accommodate the [redacted] conductor system; no tower replacement is required.
- Delivery of a new circuit capability of [redacted] Winter pre-fault and [redacted] Winter post-fault per circuit, providing sufficient transfer capability to meet forecast network requirements and maintain SQSS compliance.
- Additional network capacity to facilitate increasing generation connections and power transfers across the South West, supporting both customer connection requirements and maintaining SQSS-compliant network capability.
- [redacted] to support the uprated circuit ratings and enable operation at the enhance post-reconductoring capability.
- Extension of asset life through replacement of ageing conductor and fittings assets originally installed in 1960/62, reducing the likelihood of future standalone

asset health interventions and avoiding the need for separate future refurbishment works.

The investment is located on the ZZ Exeter-Taunton OHL route in the South West of England, connecting Exeter, Taunton and Shurton substations. The route location is shown in Figure 1, with additional location mapping provided in Appendix B.

Figure 1: Transmission route map



1.4 Changes since earlier regulatory submission

Since submission of the February 2025 EJP, the project scope and delivery assumptions have evolved as part of the normal course of project development. The preferred solution remains the reconductoring of the ZZ Exeter-Taunton OHL route, and the changes described below do not alter the fundamental design philosophy or the consumer case established at EJP stage.

Route-specific structural analysis has also refined the tower steelwork requirement. The current design identifies localised bracing and replacement of overloaded tower members, totalling [redacted] of strengthening steelwork, with no tower replacement required.

Conductor type

The preferred conductor has changed from [redacted] conductor to [redacted] conductor operation at [redacted]. This change was not anticipated at EJP stage and was driven by the withdrawal of Type Registration for [redacted] conductor, following technical testing which

identified non-compliance with NGET's technical specification for maximum short-term fault temperature.

The change was required because the withdrawal of [redacted] Type Registration prevented its procurement for new projects. NGET therefore returned to the EJP optioneering and confirmed [redacted] as the highest-rated type-registered conductor available that met the route's system requirements and delivery constraints.

No new optioneering exercise was required. The higher-rated [redacted] conductor was not type registered, including fittings, in time to be procured and installed within the secured [redacted] outage windows; [redacted] at [redacted] meets the required [redacted] Winter post-fault rating and was deliverable to programme timescales.

Project driver

The primary investment driver has been refined since the EJP. At EJP stage, the project was presented principally as a customer connection-driven reinforcement. The 2023 TWR forecast overloads from [redacted] because of planned connections in the South West. The SC1 boundary requirement identified through tCSNP2 was a supporting driver.

The customer driver has changed because of Connection Reform, which reassessed the South West connection queue. The updated customer position still requires the reinforcement, but the point at which the need materialises has moved to 2032. Updated network planning assessments, including Clean Power 2030 (CP2030), the tCSNP2 Refresh and Connection Reform pathways, have since confirmed a firm requirement for reinforcement of the ZZ route by 2032. That requirement is driven by two Hinkley Point C units in service, high South West generation, and IFA2 and FAB Link exporting at full capacity. The primary driver is now an SC1 boundary capability. This is a re-prioritisation of a driver already identified at EJP stage, not a new need.

Customer connections remain a supporting driver. The need now reflects a system-wide boundary requirement, so it is less exposed to any single connection changing or falling away. The requirement for the investment remains valid at Project Assessment stage.

Foundation and tower strengthening works

At EJP stage, no detailed design had been undertaken and a requirement for tower foundation upgrades and steelwork strengthening was estimated on a generic portfolio basis [redacted] foundation upgrades). Following the change to [redacted] conductor, a route-specific desktop foundation QRA has been completed, comparing foundation loads under [redacted] against the original deterministic design loads in accordance with current standards [redacted]

The assessment confirms that the existing foundations have sufficient capacity for reconductoring with [redacted], with all assessed loads falling below the original deterministic design loads, and no load-driven foundation strengthening is required across the route. This technically driven change reduces scope and delivery risk relative to the EJP. As a proportionate, precautionary measure, foundation upgrades are included within base scope at [redacted] tower locations, where localised ground investigations are undertaken to verify soil conditions ahead of construction. Further detail is provided in Section 2.3.

Transducer/protection upgrades

During FEED, a requirement was identified to replace an existing analogue transducer that lacks the bandwidth for the uprated circuit ratings. This change is technically required and directly consequential to the [redacted] uprate. It is a direct replacement of the existing unit with a higher specification equivalent, delivered within the first planned outage, with no programme impact and immaterial cost, and does not alter the preferred solution or consumer case.

Further detail on each of these developments, including the associated cost and delivery implications, is provided in Section 2 (Detailed developments) and Section 3 (Costs).

1.5 Cost

The total project cost for delivery of ZZ Exeter-Taunton is [redacted] (23/24 prices), with cost firmness of fixed or agreed re-measurable making up [redacted] of total project costs, reflecting the awarded [redacted] design and build contract. Of this, [redacted] has been incurred as actual expenditure to date, with [redacted] forecast to complete.

Table 1: Cost breakdown summary (23/24 prices)

Cost Category	Cost (£m) (23/24 prices)
Contractors	[redacted]
National Grid	[redacted]
Other (inflation/risk)	[redacted]
TOTAL	[redacted]

1.6 Risk approach

The ZZ Exeter-Taunton project includes a risk allowance of [redacted] (23/24 prices), equivalent to [redacted] of total project costs estimate, [redacted] of the [redacted] PA funding request, and [redacted] of project base cost estimate.

The risk allowance reflects the uncertainty associated with delivering a complex transmission infrastructure project and has been derived through the project's comprehensive QRA process. The project risk register captures [redacted] risks across the project's key delivery themes, including outages and third-party interfaces, procurement and supply chain, construction, design and engineering, commissioning, and wider strategic and environmental factors.

Table 2: ZZ Exeter-Taunton risk allowance inputs

Title	Value (£m, 23/24 prices)
Total	[redacted]
Risk allowance as % of total project cost	[redacted]

Title	Value (£m, 23/24 prices)
Risk allowance as % of PA funding request	[redacted]
Risk allowance as % of project base cost estimate	[redacted]

ZZ Exeter-Taunton provides a cost-efficient, consumer-orientated investment that secures SQSS-compliant boundary capability on the ZZ Exeter-Taunton route to meet firm future transfer requirements. Reconductoring the existing route [redacted] makes efficient use of established infrastructure, enabling timely delivery within the available National Energy System Operator (NESO) outage windows while specialist OHL resource remains committed, and avoiding the higher cost and programme risk of deferral or more capital-intensive intervention.

In addition to preparing an updated CBA (see section 3.3), consumer value and cost efficiency have been secured by using a mature, assured cost base, subjecting costs to internal challenge and benchmarking, and applying an efficient procurement strategy combining an established framework, market-tested pricing and target-cost delivery. We have also carefully considered risk and applied an allowance commensurate with the outage-constrained nature of the works.

Taken together, we have applied an approach that will ensure ZZ Exeter-Taunton is delivered efficiently and in a timely manner.

2. Detailed developments

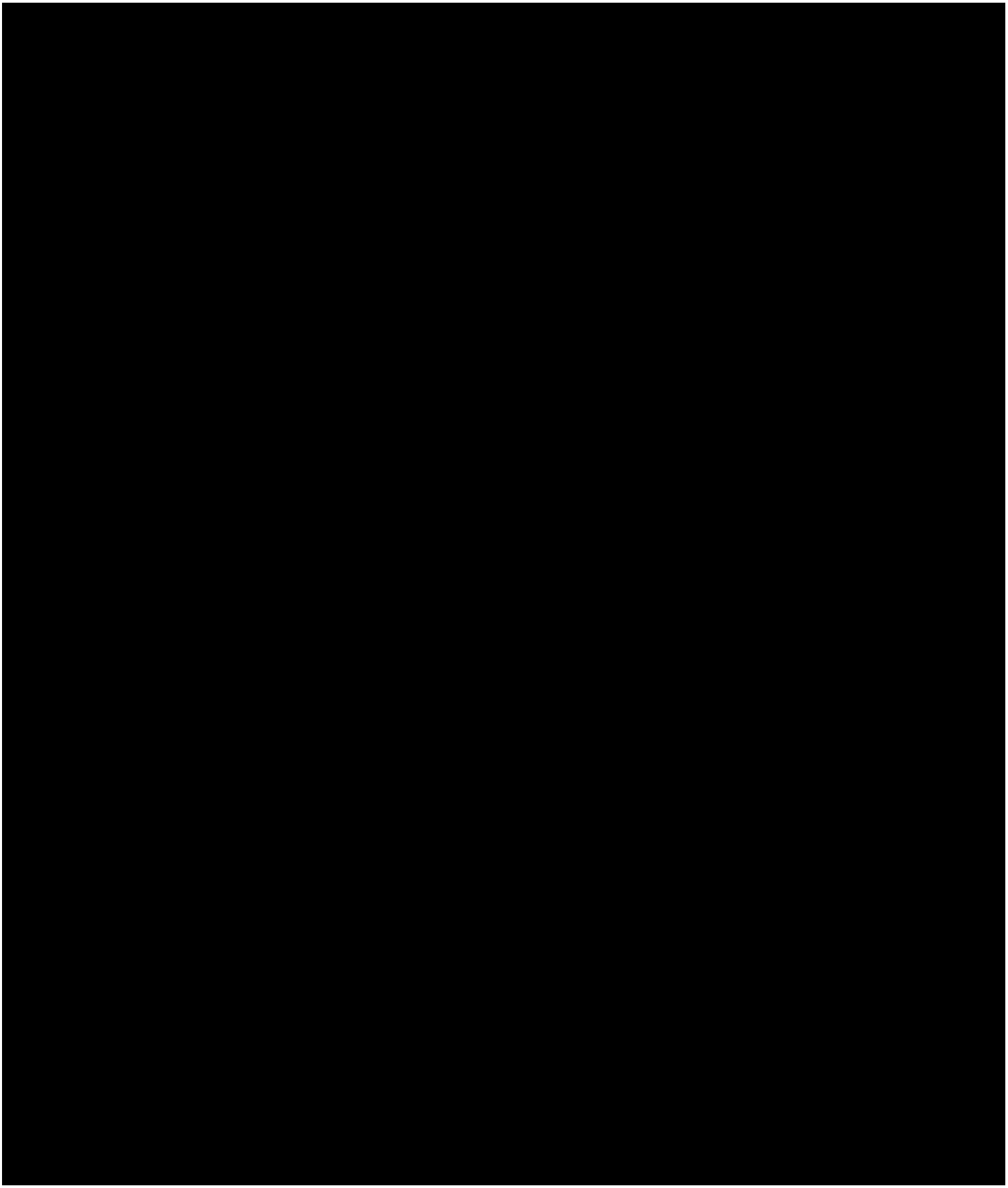
Table 3: Detailed development highlights

Headlines
Overall, there is principal design continuity since EJP submission, with refinements reflecting ongoing design development, updated network planning assessments and conductor selection requirements. Following confirmation of need at RIIO-T3 Final Determinations, the February 2026 Load Board established the position that, subject to confirmation outside the meeting, the near-term OHL schemes affected by the withdrawal of [redacted] type registration could proceed to PA. The preferred solution remains appropriate to address the identified network need, and no material changes have been made to the project scope, outputs or delivery strategy. These developments do not materially impact the consumer benefits of the investment.

The preferred solution – reconductoring of the ZZ Exeter-Taunton OHL route – remains consistent with that presented at EJP stage; please refer to Appendix C for the technical scope of the investment.

The developments since EJP submission reflect ongoing design maturation, updated network planning assessments, conductor selection requirements and further delivery planning. These have refined the design and strengthened the underlying needs case, but do not materially alter the preferred option identified at EJP.

The solution continues to provide the network capability required to address the identified system need and support future requirements, and the updated CBA (Section 3.3) continues to demonstrate that it represents an efficient and economic outcome for consumers.





[redacted]

2.1 Conductor Selection

The EJP identified [redacted] conductor as the preferred solution for reconductoring the ZZ Exeter-Taunton route, selected as the highest-rated type-registered conductor available at the time. Following submission, the Type Registration for [redacted] conductor was withdrawn after testing by the Electric Power Research Institute (EPRI), an independent international energy research body, identified a reduction in rated breaking strength beyond acceptable limits, resulting in non-compliance with NGET's technical specification for a maximum short-term fault temperature. [redacted] cannot be installed on the network while its Type Registration is withdrawn. The preferred conductor is therefore [redacted] operating at [redacted]

NGET's position on conductor selection following the withdrawal was set out to Ofgem in the [redacted] addendum (June 2025), which reviewed all ten affected RIIO-T3 EJPs and requested revised allowances on a [redacted] basis.

The position was subsequently discussed at the February 2026 Load Board. Ofgem indicated that, subject to confirmation outside the meeting, the near-term OHL schemes affected by the withdrawal [redacted] registration could proceed to Project Assessment. NGET has therefore progressed ZZ Exeter-Taunton on this basis, with [redacted] assessed as the replacement conductor in this submission.

The circuit requirement established through the TWR is a Winter post-fault continuous rating of [redacted] per circuit. [redacted] at [redacted] delivers [redacted] Winter pre-fault and Winter post-fault, meeting the requirement. [redacted] is the highest-rated type-

registered conductor now available for this route. [redacted] had the highest rating of the type-registered options; [redacted] was the next highest.

[redacted] was not a credible alternative. The constraint is [redacted] was assessed only in combination with a new-build OHL, which was rejected on consenting and programme grounds.

[redacted] is also not viable because, including its associated fittings, was not type registered at the point the design was fixed, the works were tendered and the conductor was procured, and could not have been type registered, manufactured and delivered in time for the first outage on [redacted].

Adopting [redacted] would have required FEED to be reopened and elements of the design re-performed and the conductor re-procured against an untested lead time. The resulting delay would have released the four secured outage windows. Those windows are centrally allocated by NESO, are not transferable, and became deliverable only through the winter-working and ERTS methodology developed with [redacted]; OHL construction resource is committed across the industry to at least 2033 (Section 2.2). Releasing them would defer the SC1 boundary capability without reducing the cost of the reinforcement. [redacted] at [redacted] meets the required rating, was type registered, and could be procured and installed within the secured windows.

On cost, the conductor change reduces the EJP-basis estimate for the preferred solution from [redacted] to [redacted] requires a smaller construction footprint and fewer structural modifications than [redacted] and avoids the specialist tension-stringing methodologies, larger Equal Potential Zones, larger drum sizes and specialist jointing procedures required by [redacted] composite core. The scope of works is otherwise unchanged.

The [redacted] and the current PA cost of [redacted] (23/24 prices) are not directly comparable. The [redacted] is the EJP estimate re-run for [redacted] holding the EJP's generic portfolio (EUL) assumptions constant. The PA cost replaces that assumption with the market-tested [redacted] cost and route-specific engineering analysis and adds quantified risk [redacted] and contract inflation [redacted], neither of which the EJP carried on a comparable basis. The [redacted] conductor saving is one line within that reconciliation, which is set out in full at Section 3.1 and Appendix G.

2.2 Investment Driver and Strategic Need

The February 2025 EJP established both the need for reinforcement and identified delivery in [redacted]. This timing informed the optioneering: (Option 6: a new OHL circuit and Option 7 and 8: comprising a quadrature booster and series reactor respectively, were rejected because they could not be delivered within the delivery window) and was bounded by system access constraints, with the [redacted] outages already requested from NESO. This PA does not revisit that timing rationale. It demonstrates that subsequent design development, updated network planning and delivery planning continue to support delivery within the previously assessed [redacted] window.

The investment was originally presented as a customer-connection-driven reinforcement, addressing forecast thermal overloads on the ZZ Exeter-Taunton circuit from planned connections in the South West. Since submission, updated network planning assessments — including Clean Power 2030 (CP2030), the tCSNP2 Refresh and Connection Reform pathways — have refined and strengthened the need case.

The primary driver is now the requirement to increase SC1 boundary capability to maintain compliance with the SQSS. The SC1 boundary requirement was identified at EJP stage as the tCSNP2 driver; its elevation to primary driver is therefore a re-prioritisation of an existing driver rather than a new need. Analysis across these scenarios indicates a firm and consistent requirement for reinforcement of the ZZ route (identified in tCSNP2 as THRE) by 2032, driven by two Hinkley Point C units in service, high South West generation, and interconnectors (IFA2 and FAB Link) exporting at full capacity, with transfer requirements exceeding the capability of the existing circuits under N-1 conditions. Customer connections remain a supporting driver. This is a refinement rather than a fundamental change, and it reinforces — rather than undermines — the case for the investment. Because the need is now anchored in a firm, system-wide boundary requirement rather than solely in individual connection dates, the case for the intervention is more robust and less exposed to the risk of any single customer connection changing or falling away.

The driver has been re-anchored since the EJP, but the delivery window has not changed. At EJP stage, TWR identified pre-fault overloads on the circuit f[redacted]onwards, driven by contracted connections. The PA anchors the need in the SC1 boundary requirement from 2032 — a firmer, system-wide basis, less exposed to any individual connection changing or falling away. The[redacted] window remains correct under either driver: it was set by outage availability and system access, not by the need date, and those constraints have tightened rather than eased.

Deferral is not a least-cost option; it is a least-certain one. The reinforcement is required either way and the scope is unchanged, so deferral defers expenditure rather than avoiding it. What it changes is whether the capability is available when the need crystallises.

The works require [redacted]. System access is centrally allocated by NESO against a concurrent transmission programme, and the [redacted] are not transferable. The adjacent [redacted] completes [redacted] and coordination with [redacted]

The[redacted] delivery window was developed through engagement with framework contractors and reflects the system access and specialist OHL resource available to deliver [redacted] circuits. Winter working enabled [redacted] to resource the full scope within this window.

Delivery in [redacted] secures the required capability ahead of the firm 2032 system need. Deferral would not remove the investment requirement or materially change the scope; it would require equivalent system access and constrained specialist OHL resource to be secured again during a period of increasing portfolio demand. The current programme therefore provides the greatest delivery certainty and reduces the risk that the reinforcement is unavailable when required.

Asset health considerations provide an additional driver and efficiency opportunity for this scheme. A summary of the current asset health position is provided in Table 4 which reflects our latest, assured 2025/2026 asset condition data.



The condition of the existing conductor does not in itself warrant reconductoring now; the driver is boundary capability, not asset condition. However, the existing circuit cannot accommodate the transfers now forecast across the route under the SC1 boundary requirement. The associated OHL fittings include assets already classified as high and very high risk, and the preferred option therefore provides an opportunity to replace these fittings as part of the reconductoring works, rather than allowing them to age further and require a separate future intervention. Combining load-related and asset-health activities within a single outage and construction programme avoids a future standalone asset-health outage on this circuit, reducing the cumulative period of reduced network capability and minimising disruption to network users.

2.3 Foundation and Steelwork Scope

At EJP stage, no detailed design had been undertaken, and the scope assumed [redacted] foundation upgrades and [redacted] of strengthening steelwork. Following the change to [redacted] conductor, a route specific foundation QRA confirmed that loads across the route remain below the original deterministic design loads. No load-driven foundation strengthening is therefore required.

Residual uncertainty relates to ground conditions at flood-zone locations rather than conductor loading. Targeted ground investigations are therefore being undertaken to confirm suitability of the existing foundations. The latest design appendix identifies [redacted] locations for further site investigation.

Steelwork requirements have been assessed separately. The FEED structural assessment identified [redacted] of strengthening steelwork and stitch bolting at [redacted] to accommodate the [redacted] conductor loads, with no tower replacement required. [redacted] is

verifying this requirement through detailed structural analysis and will confirm the final strengthening scope through the detailed design.

2.4 [redacted]

During FEED, a requirement was identified to replace the existing Exeter substation [redacted] to accommodate the uprated circuit ratings. This requirement was not identified at EJP stage. The works replace the existing [redacted] units and increase the NMR settings from [redacted], in accordance with Design Handbook 20.

The upgrade is required to enable operation at the uprated circuit ratings and will be delivered alongside the reconductoring works. An allowance of [redacted] is included in the cost model, see Appendix G.

2.5 Construction works

Construction activities have not commenced since EJP submission, with the project progressing through detailed design, procurement and delivery planning; further detail is provided in Appendix D. Early development works undertaken to date comprise the surveys and investigations needed to inform detailed design and construction planning. The principal construction scope is the reconductoring and refurbishment of the Exeter–Taunton and Shurton–Taunton circuits between Towers [redacted] and [redacted] comprising removal of the [redacted], and replacement of associated [redacted]. The works will be delivered by [redacted] under [redacted] sequenced outages commencing in [redacted] and concluding in [redacted], when the uprated circuits will be ready for energisation. This is consistent with the [redacted] delivery window assessed at EJP stage; references to [redacted] describe the commencement of the outage programme, rather than completion of all four circuits within that calendar year.

Winter working is what makes the programme resourceable. It is not a scheduling preference. [redacted] outages are required regardless of approach, as there are [redacted] circuits to reconductor. Conventional reconductoring stands down over the winter period. Working through it unlocks an additional [redacted]-month working window each year that would otherwise be programme downtime and provides access to specialist OHL resource outside the traditional outage season that would not otherwise be available to the scheme. Framework contractors confirmed they could not resource the works within the indicative outage windows as originally framed; the windows became deliverable only through the adoption of winter working (Section 2.2).

The Emergency Return to Service (ERTS) methodology developed with [redacted] enables this. ERTS allows the circuit to be recovered to operational readiness within [redacted] during construction. Under a conventional approach there is no comparable rapid-recovery capability: once a circuit is taken out and the conductor part-strung, it cannot be safely returned to service until the section works are complete and the line reinstate, a process measured in weeks. By assuring NESO that the circuit can be recovered within [redacted] if system conditions demand it, ERTS makes the winter outage securable, enabling continuous working through the period rather than releasing the outage and returning in a subsequent year.

Winter working operates within shorter daylight hours. The outage windows have been sized accordingly, with approximately [redacted] built into the programme from the outset. This is a planned feature of the strategy: [redacted] of additional outage duration secures [redacted] of additional working time each year. Without it, delivery would have extended into an additional outage season, deferring the boundary capability the investment releases.

Delivery is sequenced to protect the critical outage dates: [redacted]

[redacted] removing the risk of ground-nesting bird constraints delaying the main works. Resource and materials are secured separately: the specialist OHL gangs are committed against the outage sequence, and long-lead conductor supply is contracted ahead of need, with both tracked to the outage dates through the programme.

Where the route crosses third-party assets, including [redacted] scaffolding and catenary/protection systems are deployed to maintain protection during stringing, with ERTS recovery arrangements for these crossings pre-agreed with the relevant asset owners. A specific impact of the works is that [redacted] towers are being worked to their design limits; the earth-wire protection methodology adopted during stringing maintains the required electrical clearances at these constrained locations and is evidenced through the clearance analysis and supporting drawings provided in Appendix C.

Following the outage works, reinstatement and close-out activities are undertaken across all locations, with a completion-date extension agreed to accommodate muff repairs and painting (a non-outage-driven activity) following reconductoring, moving Completion of the Whole Works to [redacted]. Further detail on the construction methodology, delivery sequencing, ERTS strategy and outage programme is provided in Appendix D.

2.6 Land and consents

The ZZ Exeter-Taunton reconductoring works are undertaken within the existing transmission corridor and reuse the existing towers and therefore do not require the acquisition of new land for permanent infrastructure. Access to the [redacted] towers ([redacted]) is achieved predominantly through existing land rights – principally wayleaves and easements – with permanent rights otherwise limited to National Grid's existing operational land, including gantry access within the Shurton, Taunton and Exeter substations. Because the works are delivered within the existing corridor and are temporary in nature, no primary planning consent is required. By contrast, a reinforcement of equivalent output delivered through new circuits or replacement infrastructure would require new land rights, compulsory purchase and primary planning consent – adding cost, consenting risk and programme time that the reconductoring approach avoids entirely.

Where existing rights do not provide the access needed for construction, temporary arrangements – for compounds, welfare, laydown, access routes and working areas at each tower – will be secured [redacted]

[redacted] As with all works, [redacted] On this basis, no compulsory purchase is required, and no material land acquisition risks have been identified that would affect deliverability of the preferred option.

Further detail on the land rights position, temporary and permanent rights, the phased engagement approach and the consents position is provided in Appendix E.

3. Costs

Table 5: Costs headlines

Headlines
Total project costs for ZZ Exeter-Taunton are [redacted] (23/24 prices). Cost firmness is [redacted] fixed or agreed re-measurable, reflecting the awarded [redacted] main works contract and National Grid [redacted] Benchmarking supports the efficiency of the cost position, with costs aligned with or below relevant internal and external benchmarks; the normalised OHL contractor rate of [redacted] is below all identified internal comparators and contractor costs were within [redacted] of NGET's independent assurance estimate.
The PMean risk allowance is [redacted] (23/24 prices), representing [redacted] of project costs excluding risk and contingency. The updated CBA confirms the continued case for the preferred solution.

3.1 Investment costs

The cost to deliver the ZZ Exeter-Taunton project in line with the proposed scope is [redacted] (23/24 prices). The cost model is available in Appendix G, and a cost summary is provided in Table 6. Appendix P contains the Regulatory Reporting Pack (RRP)-compliant submission required by Ofgem's Load Re-Opener Guidance. [redacted] of total project costs are either fixed or agreed re-measurable, reflecting the [redacted] contract, providing confidence in the cost position.

This section provides a description of the overall costs, the price base, a detailed breakdown of costs and a summary of cost firmness. The costs provided include actual costs incurred to date and a forecast profile of future costs to complete. Costs cover all activities on the project from initial project development through to the completion of construction and commissioning, including development, design, procurement, construction, commissioning, land and access, consents, third-party costs, internal costs, inflation and risk. All costs are presented in 2023/24 prices unless otherwise stated. Of the [redacted], [redacted] has been incurred as actual expenditure to date, with [redacted] forecast to complete. Expenditure is apportioned [redacted] in the RIIO-T2 period and [redacted] in RIIO-T3.

Cost movement since the EJP

The February 2025 EJP estimate for the preferred solution was [redacted] based on the [redacted] conductor. Following withdrawal of [redacted] Type Registration and adoption of the [redacted] conductor, the equivalent cost reduced to [redacted] demonstrating that the conductor change was cost reducing in isolation.

The current PA primary benchmark estimate is [redacted] (excluding [redacted] contract inflation), an increase of [redacted] increase on the EJP mid-point estimate of [redacted]. Importantly, the PA forecast sits within the original Class 4 estimate range established at EJP [redacted] so the movement falls within the uncertainty inherent in the estimate maturity available at that stage.

The movement is principally the result of replacing generic portfolio assumptions with route-specific engineering analysis and a market-tested contractor price. The EJP estimate was prepared before detailed design, FEED and procurement, and priced the works using standard unit rates rather than surveyed route conditions. The largest single element of the increase - [redacted] for third-party crossing and earth wire protection – arises from the crossing protection requirements identified through FEED and agreed with [redacted], which the EJP allowances did not carry. The remainder reflects construction market conditions since February 2025 and the normal maturation of a Class 4 estimate to a contracted position.

Figure 5 sets out the reconciliation. [redacted]

[redacted]

The forecast replaces early-stage assumptions with project-specific engineering, procurement and commercial evidence obtained through design development, contractor engagement, site investigations and delivery planning. The increase therefore reflects the normal maturation of a major transmission project from a Class 4 estimate to a delivery-based forecast, not a change in scope.

The cost movement is below the [redacted] Material Project Change threshold defined in the Load Related Re-opener Guidance, confirming that the investment remains within the scope of the original needs case. The PA forecast represents a robust, evidence-based market tested assessment of the efficient cost of delivering the ZZ Exeter-Taunton OHL project.

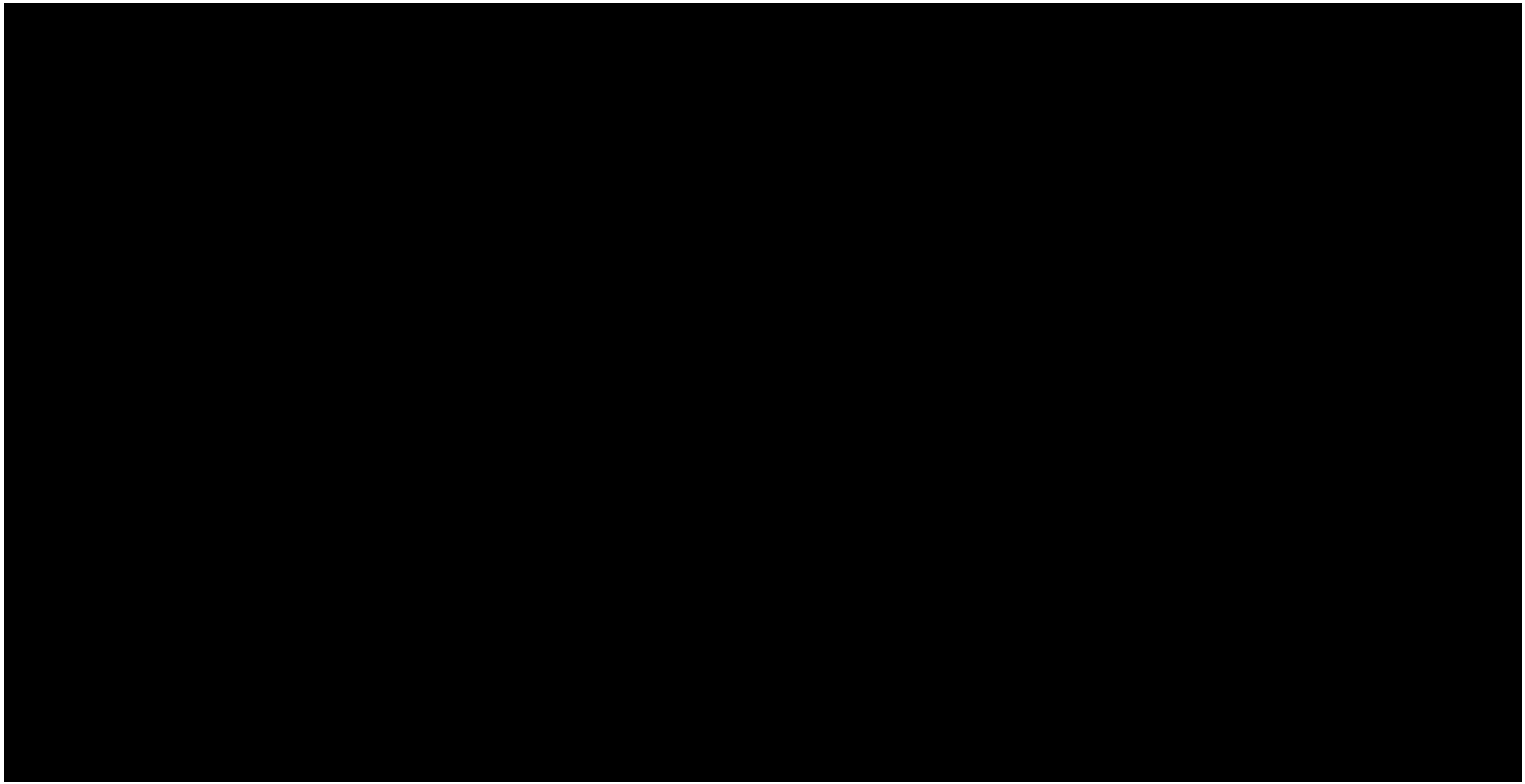
The drivers of cost evolution between the EJP and PA estimates are set out in the Benchmarking Paper, Appendix L. Our internal assurance confirms these costs as efficient and robust, corroborated by benchmarking against comparable projects as detailed in Section 3.4.

Cost assurance

Because the project was allocated through the framework rather than separately competed, project-specific cost assurance carries the evidential weight on efficiency. Costs have been subject to internal assurance and assessment against available market evidence to confirm efficiency and value for consumers. The project will be delivered under a [redacted] (further detail on the procurement approach is contained in Section 4), under which the target cost has been developed through a formal Tender Query (TQ) process, giving National Grid direct visibility of [redacted] underlying cost build-up – including resource profiles, supplier and subcontractor quotations, and priced risk. This enabled National Grid to test and challenge whether the target cost was market-reflective and efficient before it was committed, protecting consumers from overstated or inefficient costs being embedded in the target.

The [redacted] arrangement provides ongoing cost assurance throughout delivery. [redacted] xpanded further in Appendix O).

More detail on the cost assurance process, together with evidence of key cost drivers, is provided in Appendix H. Our projected costs have been benchmarked against investments of similar scope, nature and complexity, drawing on our extensive experience of electricity transmission construction programmes. Our benchmarking analysis is summarised in Section 3.4.



3.2 Cost drivers

Table 7 provides narrative defining the key cost drivers in the ZZ Exeter-Taunton investment linked to the activity.

Table 7: Cost drivers for each cost category

Activity	Description
Main works contractor	• [redacted], including construction project management, asset specific detailed design, surveys, site establishment and enabling works • Reconductoring of the Exeter-Taunton and Shurton-Taunton circuits across [redacted] planned outages, replacing the existing [redacted] conductor • Installation of OPGW and replacement of associated OHL fittings and hardware • Access and temporary works, third-party crossing protection, targeted foundation works, steelwork strengthening where required, winter-working and ERTS provisions • Commissioning, reinstatement, muff repairs, painting and project close-out
Third party costs	Costs linked to the following contractor activities, further detailed in Table 10: [redacted]
[redacted]	[redacted] of [redacted] and associated materials for the Exeter-Taunton and Shurton-Taunton circuits
ET Operations	National Grid Staff Costs associated with project commissioning.
Project management	National Grid Staff Costs associated with managing and delivering the project, including contractor management, programme coordination, commercial oversight, governance, reporting and management of project interfaces
Project services	• National Grid staff and specialist support costs associated with health and safety compliance, quality assurance, project controls, planning, commercial management, risk management, document control, stakeholder engagement and commissioning support

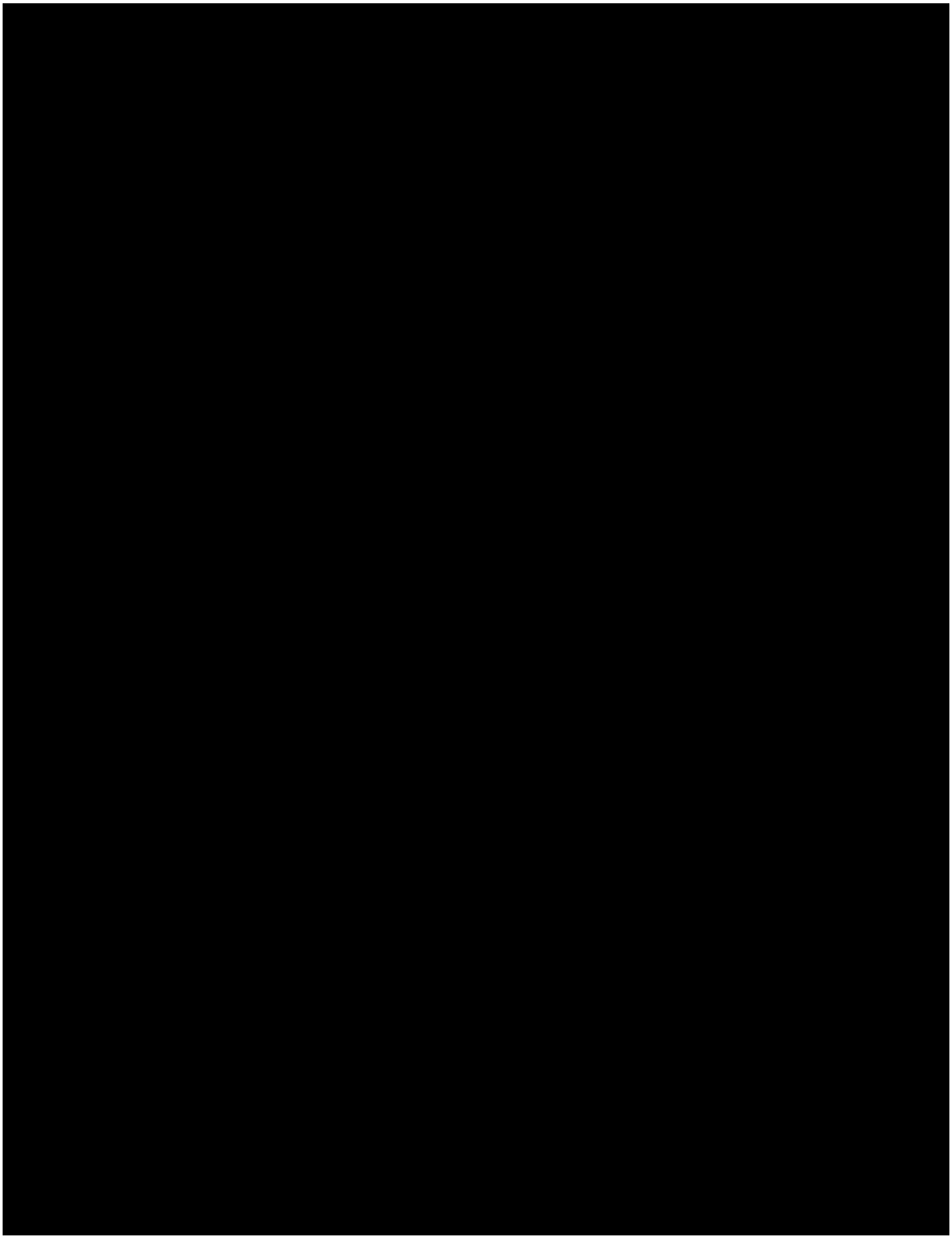
Activity	Description
	• These services provide oversight and assurance throughout design, construction and project close-out
Support Functions	National Grid Staff Costs associated with project delivery, including finance, procurement, regulatory, legal and other corporate support activities required to govern and administer the investment
Lands	• Costs associated with securing temporary access, compounds, laydown areas and working areas across the existing OHL route • Includes land-agent and professional support, wayleave and land-rights administration, landowner compensation and reinstatement obligations
NGET portfolio costs	NGET's share of portfolio and indirect costs associated with the shared organisational capability required to deliver the project, including programme leadership, engineering, consenting, commercial, governance, digital and finance support
RPE's	Forecast real price effects applied to eligible project costs over the delivery period, reflecting movements in relevant labour, plant and material costs relative to Consumer Price Index (CPIH) inflation
Risk	Costs associated with identified project risks (factored Mean from the QRA, covering National Grid-retained risk only). Contractor-allocated risks priced [redacted] are excluded from this allowance

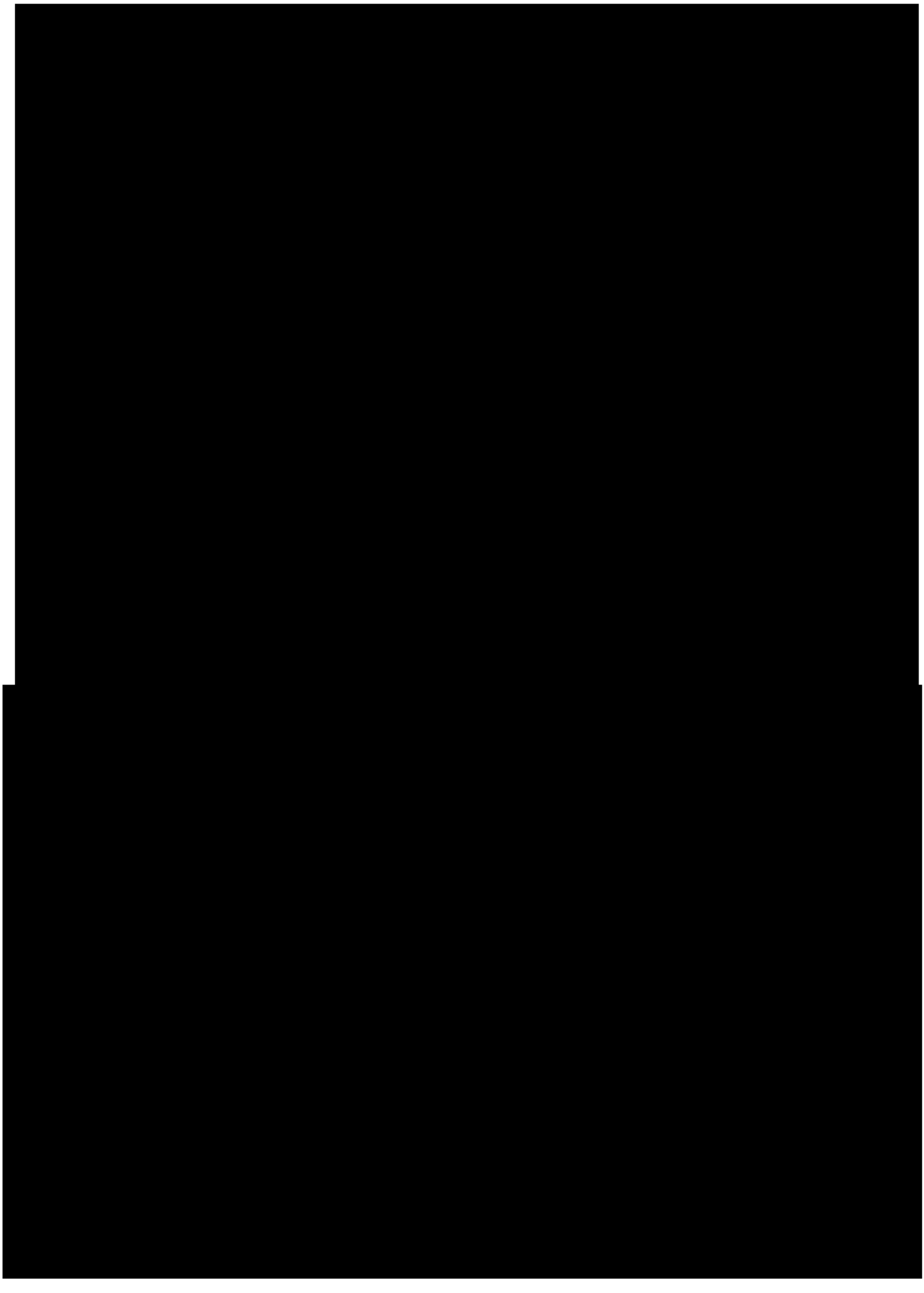
Main Works Contractor costs are the most significant element, making [redacted] of total project costs.

Free issuing of conductor

[redacted]

Contractor costs







National Grid portfolio costs

National Grid has established, and must maintain, a single integrated delivery organisation sized to deliver the whole of the forecast RIIO-T3 work programme, comprising engineering, project management, design, planning, commercial and support capability. The final determination baseline allowances, however, fund only that share of the organisation associated with the baseline programme, such that only a proportion of the Closely Associated Indirect (CAI) cost is recovered through allowances already granted, with the remainder dependent on funding routes that crystallise only as future work is approved. That CAI includes National Grids portfolio and indirect costs, a part of which represents the shared delivery capability allocated to projects – the enabling network design, programme leadership, engineering, consenting, commercial, governance, digital and finance capability that is not booked directly to an individual project but is nonetheless required to deliver it. That capability must be in place ahead of many individual approvals, and the same organisation delivers both baseline and future outputs. It is therefore right and proper that, after baseline allowances, load-related volume drivers, Price Control Deliverable (PCD) and other mechanisms have been applied, the residual efficient direct and indirect cost is recovered through the relevant reopeners. Approved outputs should carry the efficient organisational costs required to deliver them.

3.3 Updated cost benefit analysis

Table 11 below provides the outputs of the updated CBA for the [redacted] and [redacted] conductor options for the reconductoring of the ZZ Exeter-Taunton OHL route. The [redacted]

[redacted] option is the preferred option. The CBA has been prepared in 2023/24 prices and applies central carbon pricing and discounted values over the appraisal period.

The analysis shows that the [redacted] option has discounted costs of [redacted] and discounted environmental costs of [redacted], resulting in a Net Present Value (NPV) of [redacted] relative to the baseline. The alternative [redacted] option has discounted costs of [redacted] and discounted environmental costs of [redacted], resulting in an NPV of [redacted]. The [redacted] option therefore has an NPV [redacted] higher than the [redacted] option and represents the lower-cost option within the CBA.

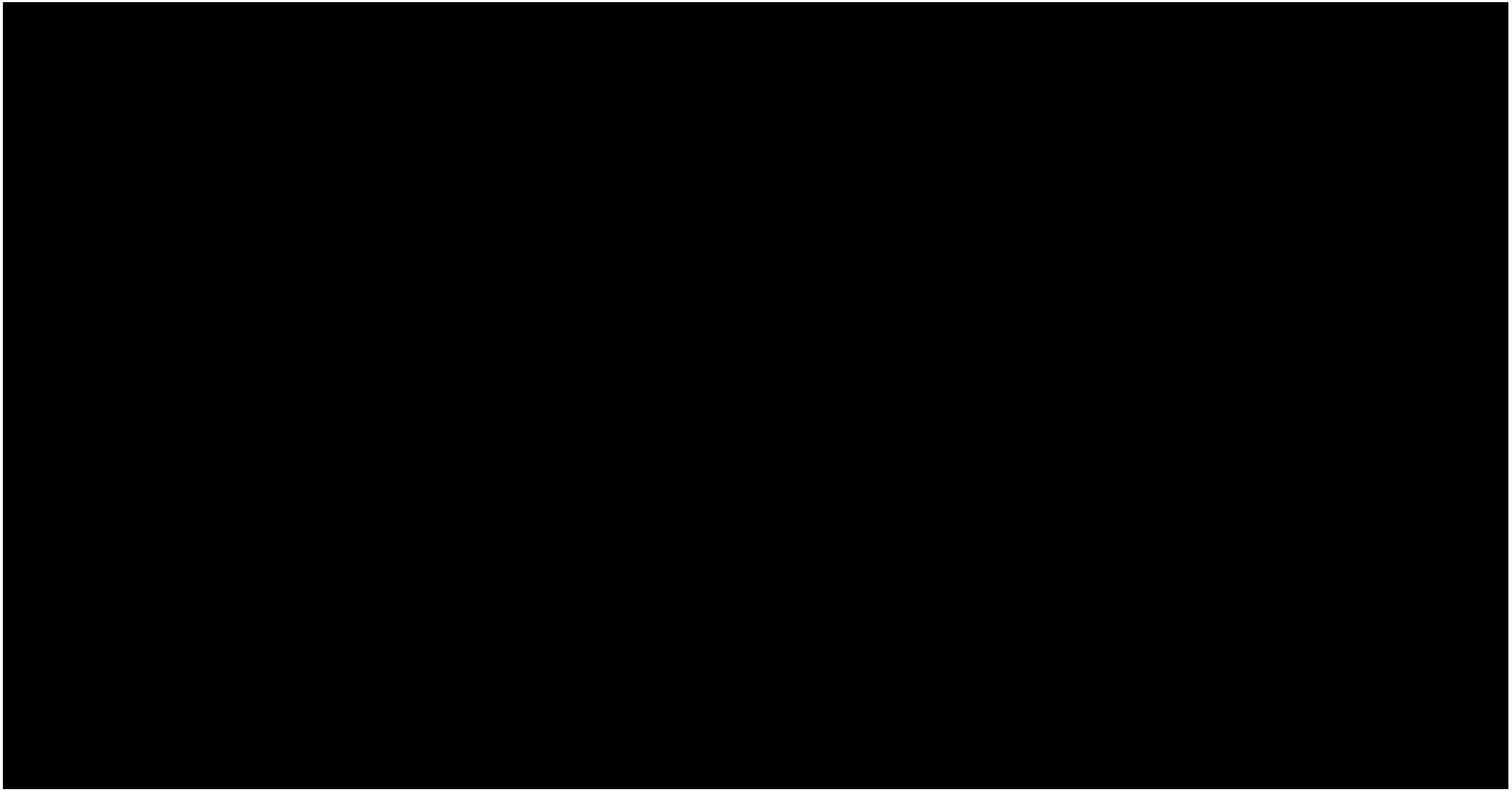
The negative NPVs reflect the nature of the investment as a required network reinforcement, rather than indicating that the project is not justified. The investment is required to provide the additional boundary capability necessary to maintain SQSS compliance and accommodate forecast power transfers across the South West network. The updated CBA is provided at Appendix J.

[redacted]

3.4 Benchmarking

Benchmarking demonstrates that ZZ Exeter-Taunton costs are aligned with, and in several areas below relevant internal and external comparators. In particular, the OHL contractor unit rate is below all identified internal comparators, while the contractor costs are within [redacted] of NGET's independent assurance estimate. While the estimate is consistent with Association of the Advancement of Cost Engineering (AACE) Class 2 maturity the % difference should not be considered as the efficient cost of delivering ZZ. Rather, it is the most representative basis for the benchmark comparison point derived from normalised comparator assumption that is intended to inform the assessment and understanding of cost drivers, rather than establishing an alternative efficient cost baseline.

The benchmarking is discussed in detail within the Benchmarking report in Appendix L.



3.5 Risk

Table 12: Risk Headlines

Headlines
The QRA identifies the project risk allowance of [redacted] (23/24 prices). The project risk allowance is the quantified sum required to manage project uncertainty arising from estimating uncertainty, schedule risk and quantified discrete risks. This allowance forms the basis of the risk allowance included within the ZZ Exeter-Taunton cost model.

Effective risk management has been embedded throughout the development, design, procurement and delivery planning of ZZ Exeter-Taunton. The latest review demonstrates that the project remains deliverable to the forecast completion date; however, successful delivery continues to depend on effective management of outage availability [redacted] third-party interfaces and adjacent scheme coordination across the [redacted] route. These themes consistently emerge as the principal contributors to both schedule and cost uncertainty.

Risks have been identified through multidisciplinary workshops involving engineering, commercial, procurement, planning and project management specialists, supported by contractor engagement, lessons learned from comparable OHL reconductoring projects and Subject Matter Expert (SME) review.

The resulting project risk register forms the basis of both the Quantitative Schedule Risk Analysis (QSRA) and Quantitative Cost Risk Analysis (QCRA), ensuring qualitative and quantitative assessments remain aligned to a common baseline. The register is reviewed monthly.

Risk identification

A total of [redacted] risks have been identified for ZZ Exeter-Taunton and grouped into risk themes, as summarised in Table 13. A comprehensive risk register is provided in Appendix M and further information on the risk management strategy is in Appendix F.

Figure 7 shows the distribution of risk by contingency theme. [redacted] is the largest component, accounting for [redacted] of the contingency value, followed by [redacted] at [redacted] The key individual risks driving the overall position are summarised in Table 16 below.

[redacted]

Risk exposure is concentrated within a small number of individual risks. The three largest risks account for [redacted] of total factored value and the five largest [redacted], with [redacted] and [redacted] among the principal exposures. In particular, [redacted] is captured through risks [redacted].

[redacted]



A comprehensive risk register is provided at Appendix M, with an excerpt in the cost model.

Quantitative risk analysis

QRA has been undertaken to assess the impact of uncertainty on delivery and determine the appropriate programme and cost allowance. The analysis is based on the latest approved programme, cost estimate and refreshed risk register.

The QCRA combines the following components:

- **Base cost** – the approved project costs excluding the risk allowance.
- **Estimating uncertainty** - the range applied to individual base cost lines to reflect the maturity of the underlying estimate. Where a cost is contracted or firmly priced the range applied is narrow; where it remains an estimate the range is wider. It is not a general uplift or contingency.
- **Schedule-related costs** – costs arising from programme delay, informed by the QSRA and applied using a project burn rate of [redacted] per week.
- **Discrete project risks** – quantified cost impacts of individual risks.

These are combined using Monte Carlo simulation to produce probabilistic forecasts of cost and schedule outcomes.

Quantitative Schedule Risk Assessment (QSRA)

The deterministic programme forecasts completion on [redacted]. Applying duration uncertainty and quantified schedule risks gives a PMean completion of [redacted]

The principal contributors to schedule uncertainty are:

[redacted]

Quantitative Cost Risk Assessment (QCRA)

The QCRA forecasts a PMean risk allowance of [redacted] (23/24 prices). Schedule-related cost is the largest component, consistent with the QSRA finding that programme exposure rather than discrete cost events is the dominant driver. The principal cost contributors align with the schedule drivers above, confirming that both share the same root causes.

[redacted]

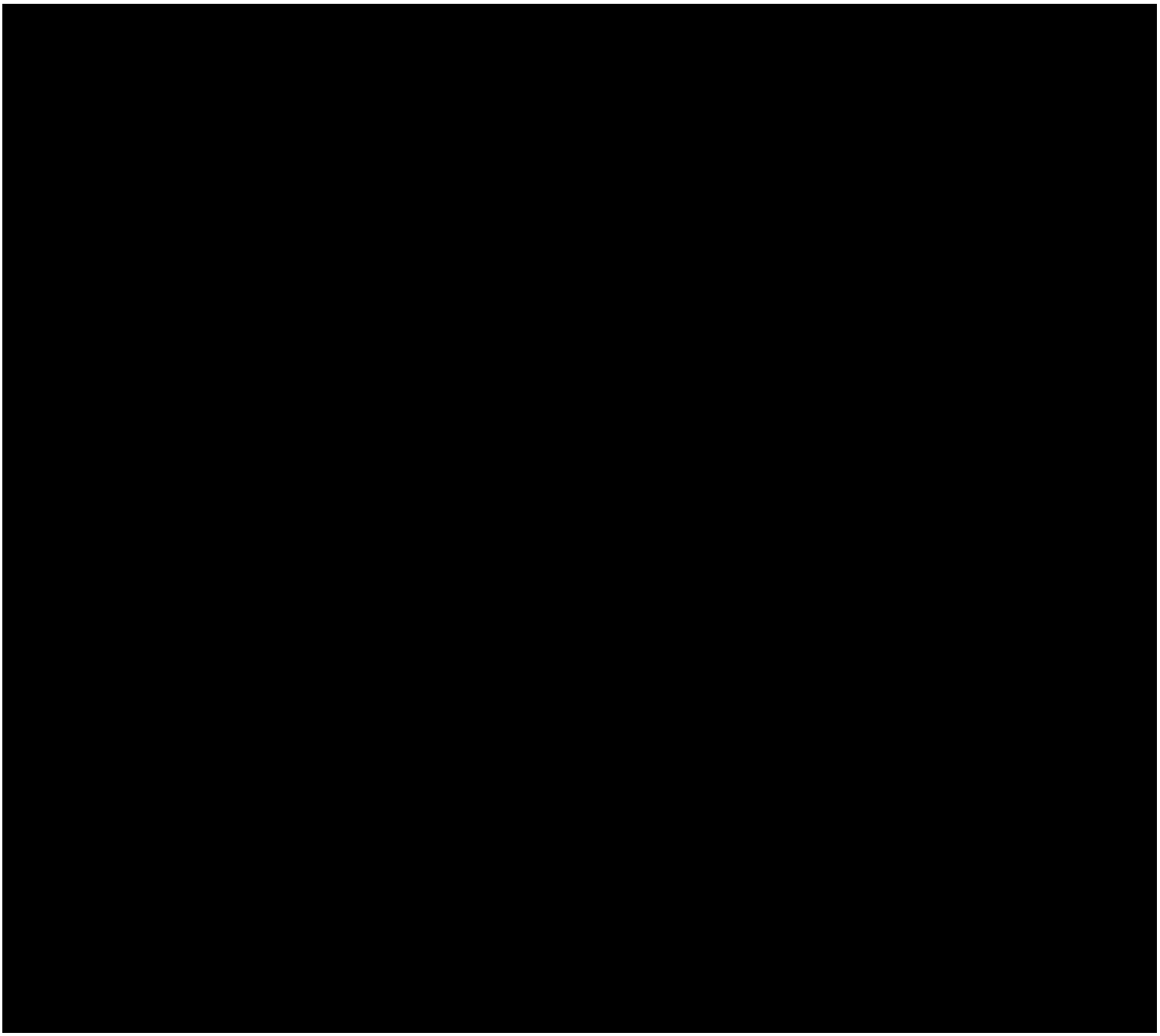
Table 15: QCRA summary results (£m, 23/24 prices)

	Mean ECC	P50 ECC
Total	[redacted]	[redacted]

Top 5 Quantified Discrete Project Risks by Cost-Factored EMV

The following table presents the five highest value discrete project risks identified within the ZZ Exeter-Taunton risk register, according to their Cost Factored Expected Monetary Value (EMV) value, which represents the expected risk allowance based on the average outcome of the quantitative risk assessment.

[redacted]



COAE and High Impact Low Probability risk approach

The risk allowances are focused on risks that can be reasonably identified, quantified and mitigated at the point of assessment and managed through normal project planning and delivery processes. The resulting allowance requested reflects the project's expected uncertainty position based on the information available, scope maturity, delivery strategy, and market conditions at the time of assessment.

As projects progress, risks may materialise, reduce, transfer or be replaced by new risks and opportunities. Improvements in project maturity, surveys, design development, procurement activities and mitigation measures can all change the overall risk profile of a project over time. The risk allowance should therefore be viewed as a probabilistic assessment of foreseeable uncertainty at the point of assessment, rather than a fixed measure of uncertainty throughout the project lifecycle.

Considering the above, our approach provides a consistent basis for project assessment and reflects the efficient level of uncertainty associated with project delivery when funding is

requested. The PA must be assessed against the context in which it was submitted. If Ofgem's determination of the PA is delayed and assessment is carried out against a later project position, the submission cannot be selectively reopened: it would need to be revised in full, so that scope, cost, risk and delivery assumptions are considered on a consistent basis.

None of the identified risks are considered likely to meet the Cost and Output Adjusting Event (COAE) threshold. Therefore, we assume 0% reopener recovery for efficient costs associated with risks that meet the COAE criteria.

In addition, outage-related delays have been assessed and included in our modelled risk estimate. However, if these risks are excluded, or additional risks outside NGET's reasonable control materialise resulting in delays that have material cost and schedule impacts, then they should be treated as qualifying delays, with a 0% reopener threshold.

This approach ensures that consumers pay only for the expected cost of reasonably foreseeable uncertainty, rather than highly remote or speculative events. It is also consistent with the use of probabilistic risk assessment techniques, which recognise that actual outcomes will vary around the assessed estimate. Some risks will not materialise, whilst the impact of others may exceed expectations. Across a portfolio of projects, this provides an appropriate balance between protecting consumers from unnecessary upfront costs and ensuring efficient delivery can be financed.

At the same time, it remains essential that the regulatory framework retains sufficient flexibility to address truly exceptional external events that could not have been efficiently anticipated or managed through normal project controls, such as a pandemic, global conflict, major legislative change or significant supply chain disruption affecting costs, labour or materials availability.

This approach strikes an appropriate balance between protecting consumers from unnecessary upfront costs whilst ensuring that companies are not exposed to unmanageable external events which could not reasonably have been planned for, quantified or mitigated at the time the assessment was undertaken.

For the avoidance of doubt, National Grid considers that where multiple qualifying COAE events occur, eligible impacts should be considered on a cumulative basis and that Ofgem should direct in order to provide for this as provided for in the relevant licence provisions[2], rather than being assessed in isolation.

Risk benchmarking

We have undertaken a cross-check of the project's risk estimate against a Reference Class Forecasting (RCF) model calibrated to ZZ Exeter-Taunton's maturity, complexity and delivery characteristics. Developed by Oxford Global Projects using independent data from comparable projects, the model provides an external, standardised assessment of the potential impact of project and portfolio risks on delivery outcomes. While not a replacement for the project's bottom-up risk assessment, it provides an independent cross-check and is directionally aligned with the increased use of reference-class evidence envisaged under CSNP and RIIO-T3.

Based on ZZ Exeter-Taunton's assessed maturity, complexity and other relevant parameters, the RCF model indicates risk allowances of [redacted] ZZ Exeter-Taunton's project-specific PMean risk allowance of [redacted] falls within this range, providing additional confidence that the project's risk estimate is reasonable when considered against an

[2] Licence condition 3.18.28

independent reference class. It is also below the [redacted]% average risk allowance calculated, explained and applied in our RIIO-T3 Business Plan.

The project's risk allowance sits within the range indicated by the available benchmarks and reflects the specific characteristics of the scheme, including the significant number of interfaces with landowners and agents, material exposure associated with securing the required transmission outages, extensive access negotiations across private landholdings and public highways, and topographical constraints along the route. These factors increase delivery complexity and risk and support the level of risk included.

3.6 Ongoing efficiency and Real Price Effects

Consistent with the case-by-case approach set out in Ofgem's RIIO-T3 Final Determination[3], this section sets out NGET's position in relation to the application of Ongoing Efficiency (OE) and Real Price Effects (RPEs) for the ZZ Exeter-Taunton Project Assessment.

Ongoing Efficiency (OE)

OE should not be applied to this project. The PA already reflects high-confidence, efficient delivery costs, including identified productivity, commercial and technology-driven efficiencies. Applying an additional ongoing efficiency challenge would therefore cause double-counting of efficiencies rather than capturing genuinely new productivity gains.

In the RIIO-T3 Final Determinations, Ofgem describes OE as a mechanism to capture the productivity improvements that efficient network companies can reasonably be expected to realise over time through innovation, technology adoption and improved ways of working. This approach is appropriate where allowances are established sufficiently in advance of delivery and residual opportunities for future efficiencies remain.

The circumstances of a Project Assessment are materially different. The purpose of the assessment is to establish the efficient cost of delivering a specific, mature project using project-specific evidence, including developed designs, procurement outcomes, contractual arrangements, commercial negotiations and prevailing market prices. As a result, the allowance reflects the efficient cost of delivery evidenced at the time of assessment rather than an estimate of future portfolio expenditure.

Applying OE in this context will reduce allowances below the efficient cost identified through the Project Assessment process and would be inconsistent with the case-by-case approach to re-opener assessments set out in the RIIO-T3 Final Determinations.

[redacted] of total ZZ Exeter-Taunton project costs fall within the fixed or agreed re-measurable classifications, with the remaining balance largely comprising risk allowances and estimated internal costs. As a result, there is limited scope for efficiencies to be realised following the re-opener determination through traditional ongoing efficiency levers, such as further supply chain engagement or scope optimisation.

In line with the approach described in NGET's RIIO-T3 Cost Assessment and Benchmarking methodology[4], the ZZ Exeter-Taunton project has progressed through detailed design and

[3] RIIO-3 Final Determinations Overview Document

https://www.ofgem.gov.uk/sites/default/files/2025-12/RIIO-3-Final-Determinations-overview.pdf

[4] NGET, RIIO-T3 Cost Assessment and Benchmarking Approach, Annex 14, Section 3

procurement which has secured specific efficiencies embedded in the submitted target cost, including:

[redacted]

Commercial challenge through this process removed a further [redacted] before the target was fixed, verified through the ZZ Exeter-Taunton Cost Benchmarking report[5].

Our procurement approach used a [redacted] with [redacted] This arrangement will drive efficiency as, while there is a target cost, there is also a [redacted] which means [redacted]

Any application of OE should be supported by project-specific evidence demonstrating that further efficiency opportunities remain available beyond those already reflected through design development, procurement, benchmarking and commercial challenge.

Real Price Effects (RPEs)

National Grid considers that RPEs should apply to the ZZ Exeter-Taunton Project Assessment.

The RIIO-T3 FDs state that RPEs should be applied to re-opener projects where the typical investment is a network infrastructure project with a construction phase spanning three or more regulatory years and expressly identify the ET Load Re-opener as a qualifying mechanism. Enabling works, including [redacted], are forecast to commence in [redacted], with the main conductoring works scheduled to begin in [redacted]. Construction is forecast to complete in [redacted] in accordance with the contracted delivery programme. The construction phase therefore spans the [redacted] and [redacted] regulatory years, satisfying Ofgem's three-or-more-year criterion.

The project's cost base is materially exposed to transmission-specific input-price movements – in specialist OHL labour and resource, plant, and materials – which may differ from CPIH inflation due to market conditions affecting transmission construction.

The cost model carries [redacted] for contract inflation, included within the [redacted] total allowance. This is the [redacted] under the [redacted] contract, which indexes the contractor's Defined Cost against the indices and weighting set out

[5] See Appendix L on Benchmarking for further details.

in the contract: Electrical Engineering Labour (BEAMA), Project Management and Administration and Plant Hire (BCIS), and Subcontractor and Fuel costs (SPI), with [redacted] of the contract value non-adjustable and a base date of [redacted]. It applies to Main Works Contractor costs only. No equivalent adjustment has been applied to National Grid internal costs, third party costs, direct procurement or risk.

[redacted] operates at contract level and is distinct from an RPE adjustment to National Grid's regulatory allowance. Applying RPEs would maintain funding aligned to efficient delivery costs where material movements in transmission construction input costs are not fully reflected through CPIH indexation alone.

Consistent with our response to PA Q1 in Ofgem's RIIO-ET3 Load Re-opener May 2026 submission window Draft Determinations published on 27 August 2026, we consider that significant weight should be given to project-specific contractual arrangements and market evidence when assessing RPEs. The objective should be to ensure efficient inflation-related costs are recognised while avoiding any double counting of inflationary impacts that are already reflected in the submitted forecast.

4. Deliverability and procurement

Table 17: Deliverability and procurement headlines

Headlines
Delivery is managed through an integrated programme, providing clear accountability, proportionate assurance and effective coordination across National Grid, [redacted] NESO and other stakeholders. The delivery strategy is centred on phased outage working, winter delivery and ERTS arrangements to support efficient project delivery while maintaining network operability. Four outages are required to deliver the works, reflecting the four circuits being reconductored; what the strategy changes is the pace at which they can be worked through. By assuring NESO the circuit can be recovered within [redacted] days, ERTS makes continuous winter working securable, unlocking specialist resource outside the traditional outage season and compressing the overall programme. Securing this against the national resource and outage constraints is a significant achievement, bringing forward the release of SC1 boundary capability in support of contracted generation and the CP 2030 pathway. The methodology is being proven here and, if successful, offers a repeatable approach for future reconductoring schemes and, ultimately, consumers. Key milestones include contract award in [redacted], construction commencing [redacted] completion of outage works in [redacted] and project completion in [redacted]. The procurement and delivery approach supports programme certainty, efficient resource deployment and value for consumers.

4.1 Delivery strategy

The delivery strategy covers the following areas, with further detail provided in Appendix F:

- Delivery approach and overall project context;
- Delivery programme and key milestones;
- Governance, assurance and decision-making arrangements;
- Roles, responsibilities and programme organisation;
- Procurement and contractor management arrangements;
- Outage planning, winter working and ERTS requirements; and
- Stakeholder coordination, interface management and delivery risk management.

The programme management approach for ZZ Exeter–Taunton is focused on delivering a safe, timely and efficient reinforcement that meets legal, licence, technical, environmental and consumer value obligations. Delivery is aligned with National Grid's established governance and assurance frameworks, providing clear accountability, proportionate oversight and commercial controls to manage risk and support successful delivery

The project will be delivered through [redacted] under the [redacted] using an [redacted].

The delivery strategy also includes proactive management of critical materials and supply chain activities to support programme certainty and mitigate delivery risks

The delivery approach incorporates coordinated engagement with NESO, landowners, contractors, suppliers and other relevant stakeholders to support effective interface management and minimise delivery risk. Focus is placed on coordination of outage requirements, access arrangements, environmental obligations and third-party interfaces throughout the delivery phase

A key element of the programme management strategy is the use of an integrated programme bringing together activities undertaken by National Grid, [redacted], suppliers, land agents, NESO and other third parties. This approach supports alignment across delivery partners, enables effective management of interdependencies and helps ensure delivery of the required network outputs within the agreed programme and funding envelope

National Grid's delivery team structure and governance arrangements are shown in Figure 8.

[redacted]

4.2 Programme structure and milestones

The programme has been developed to deliver in accordance with National Grid [redacted] and the planned outage windows. Since EJP submission, the

appointment of [redacted] as the delivery contractor and progression of detailed design and delivery planning have enabled to programme to be refined and structured around confirm outage windows, providing a more accurate projection of design, procurement, construction and energisation activities than the indicative [redacted] delivery assumption presented at EJP stage.

Project Delivery Date

National Grid's delivery strategy is based on the deterministic programme presented in Figure 15 and Appendix N. This programme represents the project's planned delivery schedule, based on the scope, delivery strategy and programme management measures described throughout this submission. It reflects the dates that National Grid is actively managing the project to deliver against and forms the basis of the delivery strategy and cost position presented within this PA.

The deterministic programme includes:



National Grid considers the appropriate PCD to be aligned to energisation of the reconductored circuits, representing the point at which the principal project output – the uprated circuit capability on the ZZ Exeter-Taunton route – has been delivered and is available to the system. Subsequent reinstatement, muff repair and painting activities are not outage-driven and are not appropriate milestones against which to assess delivery performance. While certain project activities, costs and risks continue beyond energisation through to final project completion, these remain captured within the project's scope, schedule and costs and do not alter the point at which the transmission capability is delivered and made available.

P50 Delivery Date

National Grid has undertaken a QSRA to assess the impact of programme uncertainty and quantified project risks on delivery outcomes. This assessment generates a range of probabilistic completion dates, including the P50 delivery date.

The P50 date corresponds to the 50th percentile outcome from the schedule risk analysis, indicating an equal likelihood of the programme completing before or after this date. Further detail on the QSRA methodology, assumptions, schedule risk drivers and resulting probabilistic completion dates is provided in Section 3.5.

For ZZ Exeter-Taunton, the P50 completion date is [redacted]. This represents the 50th percentile outcome derived from the QSRA and reflects the potential impact of residual programme uncertainty and quantified schedule risks on the deterministic programme. The deterministic programme remains the basis of National Grid's delivery strategy and reflects the milestones that the project team is actively managing to deliver the project. The P50 date is provided to support Ofgem's assessment of the need to apply the Major Projects ODI-F, and broader project deliverability and programme risk, consistent with the Load Re-opener Guidance requirements[6].

The P6 deterministic date reflects our intention to deliver to an ambitious yet achievable programme date. However, for the purposes of setting the PCD delivery date, the P50 date is the correct basis: it reflects the central forecast outcome, incorporates project-specific schedule risks and uncertainties through the QSRA, and provides a commitment that is stretching but realistically deliverable.

The P50 date is provided to support Ofgem's assessment of project deliverability, programme risk and the potential application of the Major Projects ODI-F, consistent with the Load Re-opener Guidance requirements. Should any such risk occur impacting any of the key dates, we would in the first instance look to agree and execute a recovery plan with the MWC to avoid any impact on overall completion or customer connections.

Accordingly, whilst a P50 delivery date is the most appropriate basis for informing the setting of the ODI-F target delivery date, where applicable, it is not an appropriate benchmark for a Licence Obligation delivery date and should not be used for such purposes.

National Grid supports clear accountability for the delivery of funded outputs. However, PCDs and Licence Obligations serve different regulatory purposes, and associated delivery dates should not be calibrated in the same way. A PCD protects consumers by linking allowed funding to delivery. A Licence Obligation is materially different: it is a compliance standard, backed by potential enforcement, and should therefore be reserved for clear and significant delivery failure. This is implicit in Ofgem's own justification in paragraph 4.75 of the ET Annex to the RIIO-ET3 Final Determinations that the outcome of the Project Assessment decision will be that the project is established in the licence both as a PCD and a Licence Obligation. This paragraph distinguishes between the role of the PCD in protecting consumers through funding accountability (and the ability to claw back allowances through the PCD) and the role of the Licence Obligation as an enforcement mechanism where consumer detriment arises as a result of non or late-delivery.

Using a P50 date as a Licence Obligation delivery date would set the compliance threshold at the most likely forecast outcome, not at a robust minimum standard backstop for delivery. By definition, a P50 date accepts that delivery could reasonably fall either side of that date. It therefore does not distinguish between genuine underperformance and normal project uncertainty.

[6] Where schedule risk is driven by events that may qualify as Delay Events under the Major Projects ODI-F Governance Document [redacted] National Grid would seek to apply for a Penalty Exemption Period rather than treating this exposure as an automatic ODI-F penalty risk.

If the P50 date is used for a Licence Obligation delivery date, breaches become a foreseeable outcome of the date-setting methodology rather than a meaningful indicator of poor delivery. Consistent with the Accelerated Strategic Transmission Investment (ASTI) framework and the approach adopted under Special Condition 3.19 for Centralised Strategic Network Plan (CSNP) outputs, any Licence Obligation delivery date must therefore be set at a date that is at least 12 months after the PCD delivery date. This principle is recognised in paragraph 4.196 of the ET Annex to the RIIO-ET3 Final Determinations for CSNP outputs. There, in responding to arguments from TOs about the interaction between delivery incentives and Licence Obligations, Ofgem notes that Licence Obligations provide enforcement powers that do not flow from the delivery incentive, including the ability to take steps to secure delivery where a TO has failed, or appears likely to fail, to deliver by twelve months after the delivery date. Ofgem therefore already recognises that the primary delivery date and the compliance backstop date perform different functions within the regulatory framework and should, accordingly, be set at different dates.

For these reasons, it would be an error of fact and would not be a proportionate and targeted regulatory intervention for Ofgem to establish the PCD and Licence Obligation delivery dates as aligned, and we reserve our right to appeal any future licence modification implementing the PA decision on such basis to the Competition and Markets Authority.

Critical path

The four planned outages form the critical delivery phase of the programme. All survey, design, procurement and enabling activities are sequenced to ensure that the required resources, access arrangements and materials are in place before each outage commences. Detailed design progresses through the National Grid Assurance process, with major design packages progressively approved and issued for construction between [redacted], ahead of the relevant outages. The programme critical path therefore runs through timely design assurance approval, material availability and securing of the planned outage windows into the outage delivery sequence and final energisation.

Programme risk mitigation

The programme incorporates a number of measures to manage delivery risk:

[redacted]



Delivery remains subject to a number of key constraints that are actively monitored, including timely landowner and third-party approvals, availability of the planned outage windows, achievement of Design Assurance approvals in line with programme durations, and provision of the National Grid free-issue conductor as programmed.

4.3 Supply chain capacity and outage planning

Supply chain Capacity

At the time of project development, supply-chain capacity for the key OHL materials – principally conductor and OPGW – was constrained, with global demand and the impact of Middle East conflict creating a risk of extended manufacturing lead times and price volatility for materials required ahead of the [redacted] outages.

National Grid undertook early engagement with the available suppliers and led with the appointed Main Works Contractor, [redacted] to understand manufacturing capacity, lead times and delivery risk. Based on this assessment, National Grid has [redacted] This secured manufacturing slots and material availability ahead of the outages, reduced interface risk by holding the supply relationship with National Grid and supported the timely progression of detailed design and construction sequencing. [redacted], protects consumers from supply-driven cost increases and removes a credible source of programme delay from the critical path.

The OHL delivery market is itself constrained, with a limited number of EPC contractors holding the specialist OHL capability, resource and site knowledge required to reconductor all four route sections. Early engagement through the framework allocation exercise secured [redacted] capacity and specialist resource against the required delivery window, avoiding the programme risk of competing for constrained resource through a standalone procurement. The winter working strategy set out in Section 2.5 was decisive here: by extending the working year, it allowed full resource requirement to be met from capacity that a summer-only programme could not have secured. Securing capability early, in a market where OHL construction resource is committed across the industry to at least [redacted] is a direct consumer protection: it underpins delivery in the [redacted] window and avoids the cost and deferred network benefit associated with a later delivery slot.

Outage planning

Outage planning considerations were integrated from the outset to ensure the delivery strategy minimised system disruption and programme risk. [redacted]

[redacted]

The outage windows have been arrived at through a structured, evidence-based acquisition process. Working with National Grid outage planners, indicative windows judged sufficient to complete the works were first identified, based on the historical performance of comparable OHL reconductoring works. These indicative windows were issued to our framework OHL/EPC contractors as part of the initial contractor brief to test market deliverability. [redacted]

[redacted]

Securing the option in advance nonetheless protects consumers. It means the programme can absorb design stage refinement without renegotiating system access with NESO – avoiding both the delay of competing for a fresh window in a centrally rationed access regime and the materially greater stand down and remobilisation cost that a deferred outage would incur. This exposure is quantified within the risk allowance through the [redacted] rather than held as an unquantified assumption.

Delivery also sits within a wider regional and portfolio context that influences outage availability. We are coordinating with adjacent transmission schemes on the corridor and are reviewing the potential to extend our outages to create a buffer between the start of our works and the completion of neighbouring schemes. Managing these interactions proactively reduces the risk of contention for constrained system access and protects the sequenced completion dates on which the delivered network capability – and the consumer benefit it unlocks – ultimately depend.

4.4 Procurement

Competitive tendering delivers value where market capacity exceeds committed work. That condition does not hold in the OHL market. NGET's RIIO-T3 Business Plan forecasts demand for high-voltage OHL workers at two to four times existing UK market supply and characterises the market as a "sellers' market" with lead times having doubled across major asset classes.

A project-specific competition would draw on the same limited pool of capable contractors, who can select which schemes to price and on what terms, and the tendering costs of unsuccessful bidders are recovered through contractor overheads. Frameworks apply competition at the point it is effective, at entry, and then use a Best for Task assessment to allocate work against contractor capability and availability.

[redacted]

The works are delivered as a [redacted]

The resulting cost position is [redacted] fixed or agreed re-measurable. Efficiency is evidenced by what was tested and secured on the cost — [redacted] — rather than by the route through which the contractor was appointed. Appendix O provides further detail on the procurement process, allocation assessment, commercial arrangements and contracting outcomes.

5. Conclusion

National Grid requests Ofgem's approval of an allowance of [redacted] in 2023/24 prices to deliver the ZZ Exeter-Taunton Project Assessment outputs under Special Licence Condition 3.18. The project will reconductor the existing 400kV ZZ Exeter-Taunton route with [redacted] conductor, replace associated fittings and OPGW, undertake the required targeted foundation, steelwork and protection works, and deliver circuit ratings of [redacted]

The investment remains required to maintain SQSS-compliant capability as forecast transfers across the SC1 boundary increase and to support contracted and anticipated generation connections. Developments since the February 2025 EJP have not changed the fundamental preferred solution. The change from [redacted] to [redacted] was technically required following withdrawal of [redacted] Type Registration; it maintains the required network output while reducing the cost of the conductor solution.

The requested allowance is supported by [redacted] fixed or firm but re-measurable cost, project-specific benchmarking, open-book commercial challenge, cost assurance and a quantified allowance for National Grid-retained risk. The procurement and delivery strategy secures a [redacted] capable of delivering all four route sections within the identified outage and resource window, while the [redacted] provides continuing cost control and caps consumer exposure to cost overrun, sharing delivery-stage outturn variance rather than assuming further efficiencies within the submitted cost.

Delivery across the secured [redacted] was assessed at EJP stage and remains the least-regrets route to the required output. Deferral would not reduce the cost of the reinforcement but would expose its availability to constrained system access and specialist OHL resource at the point of peak industry demand. National Grid therefore requests that Ofgem confirms the Project Assessment allowance to enable the planned procurement, outage and delivery arrangements to proceed as scheduled, securing timely restoration of SQSS-compliant boundary capability ahead of the 2032 system need.

Appendix A
Glossary

Table 20: Table of abbreviations and definitions

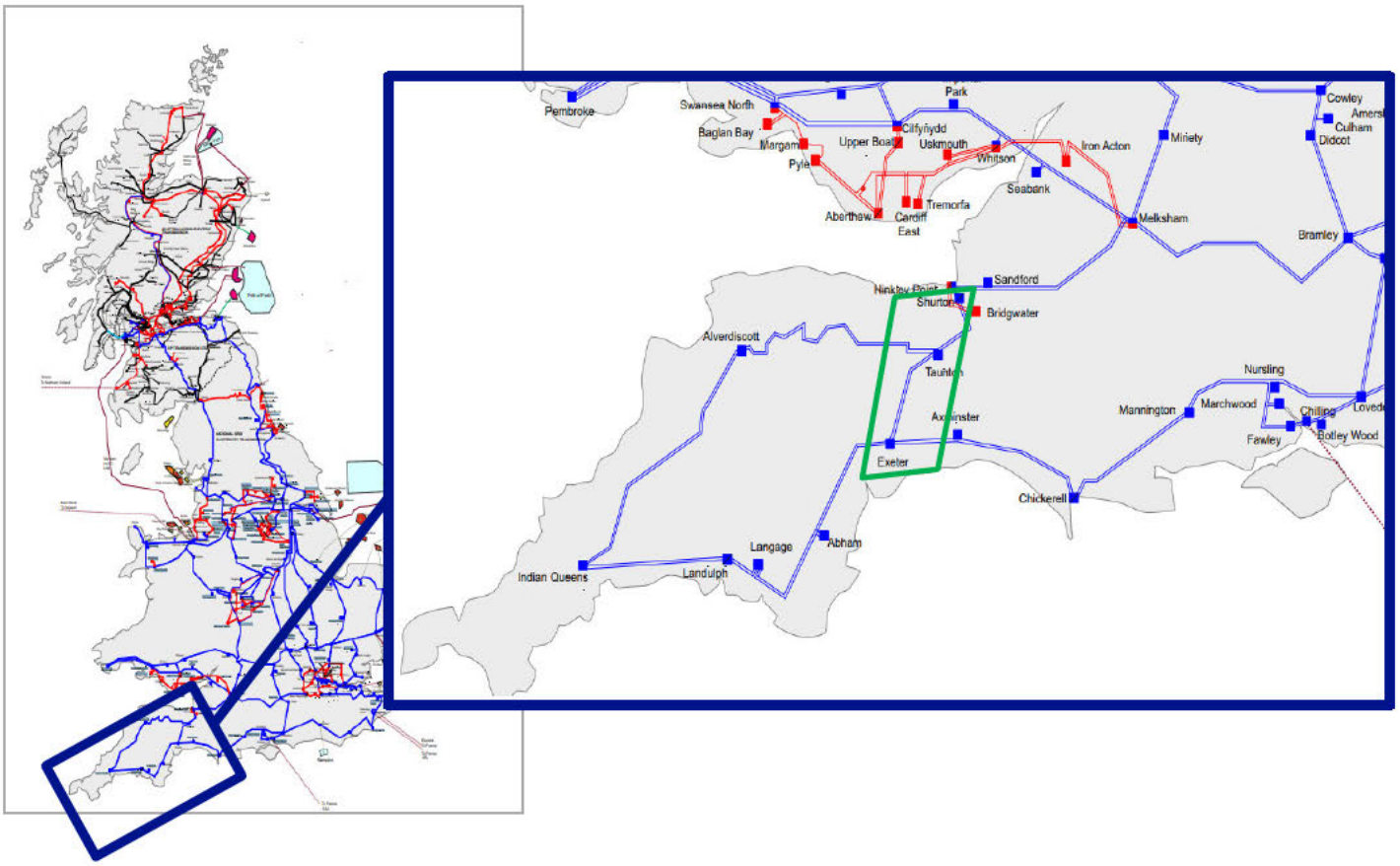
Abbreviation	Description
AACE	Association of the Advancement of Cost Engineering
APM	Advanced Procurement Mechanism
ASTI	Accelerated Strategic Transmission Investment
BCIS	Building Cost Information Service
BEAMA	British Electrotechnical and Allied Manufacturer's Association
BPDT	Business Plan Data Template
CAI	Closely Associated Indirect
CBA	Cost Benefit Analysis
cct.km	Circuit-kilometre (representing one electrical circuit over one kilometre)
CDM	Construction and Design Management
COAE	Cost and Output Adjusting Event
CP 2030	Clean Power 2030
CPIH	Consumer Prices Index including owner occupiers' housing costs
DNO	Distribution Network Operator
ECC	Estimated Cost of Completion
ECI	Early Contractor Involvement
EJP	Engineering Justification Paper
EMV	Expected Monetary Value
EPC	Engineering, Procurement and Construction
EPRI	Electric Power Research Institute
ERTS	Emergency Return to Service

Abbreviation	Description
EUL	Estimating Unit Line
FEED	Front End Engineering Design
FSA	First Site Access
kV	Kilovolt
LiDAR	Light Detection and Ranging
LRRP	Land Rights and Referencing
MVA	Mega-Volt-Ampere
NEC	New Engineering Contract
NGET	National Grid Electricity Transmission
NGED	National Grid Electricity Distribution
NPV	Net Present Value
O&M	Operations and Maintenance
OE	Ongoing Efficiency
OHL	Overhead Line
OPGW	Optical Ground Wire
PA	Project Assessment
PCD	Price Control Deliverable
PCF	Pre-Construction Funding
QCRA	Quantitative Cost Risk Analysis
QRA	Quantitative Risk Analysis
QSRA	Quantitative Schedule Risk Analysis
RPE	Real Price Effects
RRP	Regulatory Reporting Pack
SHESQ	Safety Health, Environment, Sustainability and Quality
SHMP	Stakeholder Management Plan

Abbreviation	Description
SPI	Schedule Performance Index
SQSS	Security and Quality of Supply Standard
SR	Supplier Requirement
tCSNP2	Transitional Centralised Strategic Network Plan 2
TIM	Totex Incentive Mechanism
TQ	Tender Query
TWR	Transmission Works Review
UXO	Unexploded Ordinance
ZZ	Exeter-Shurton-Taunton Overhead line route

Appendix B
Location

Figure 9: Project location - transmission route map



Key: Red = 275kV assets, Blue = 400kV assets. Investment location shown in green box.



Appendix C
Design

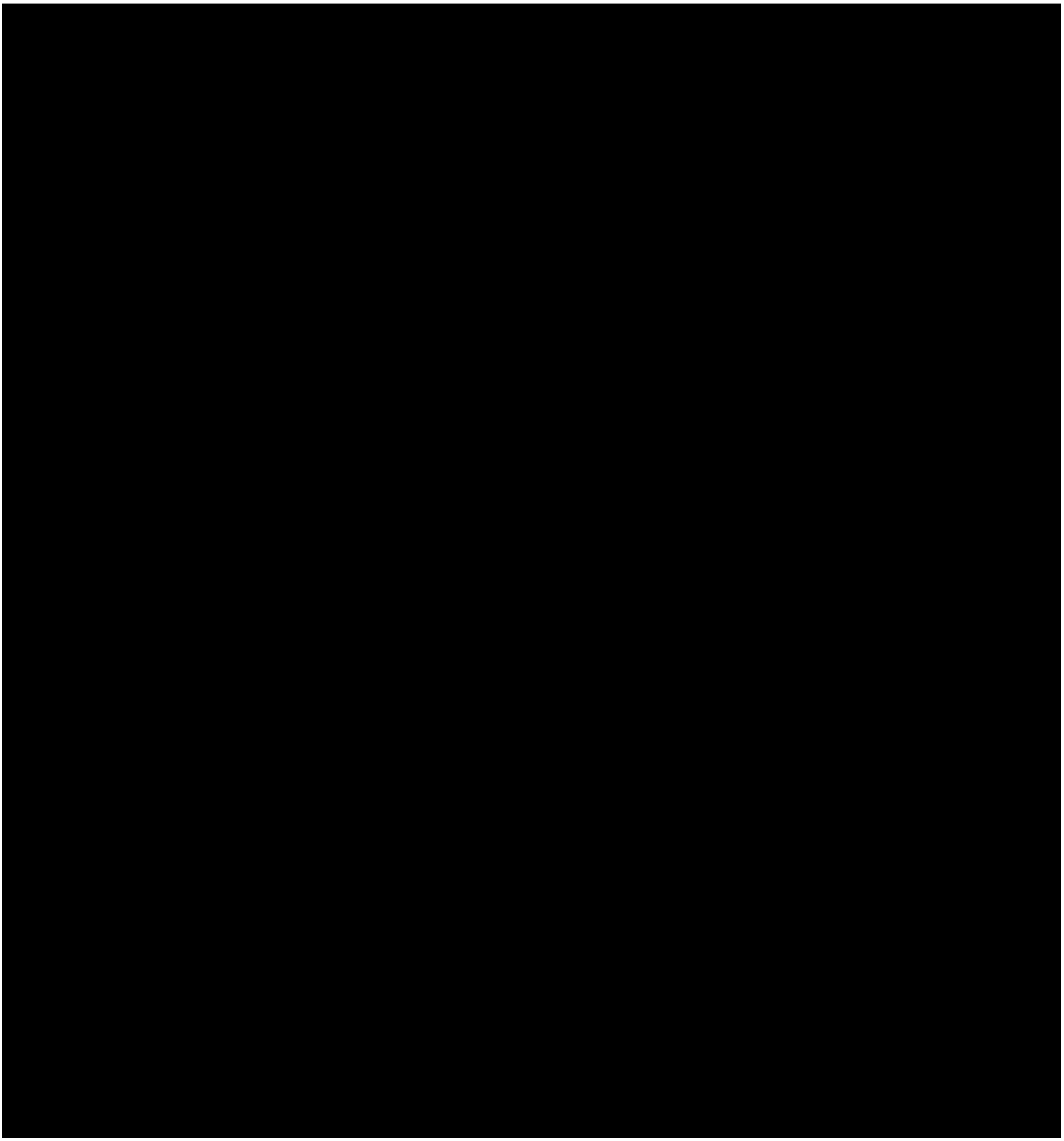
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Appendix D
Construction













Appendix E
Land strategy and consent

[redacted]



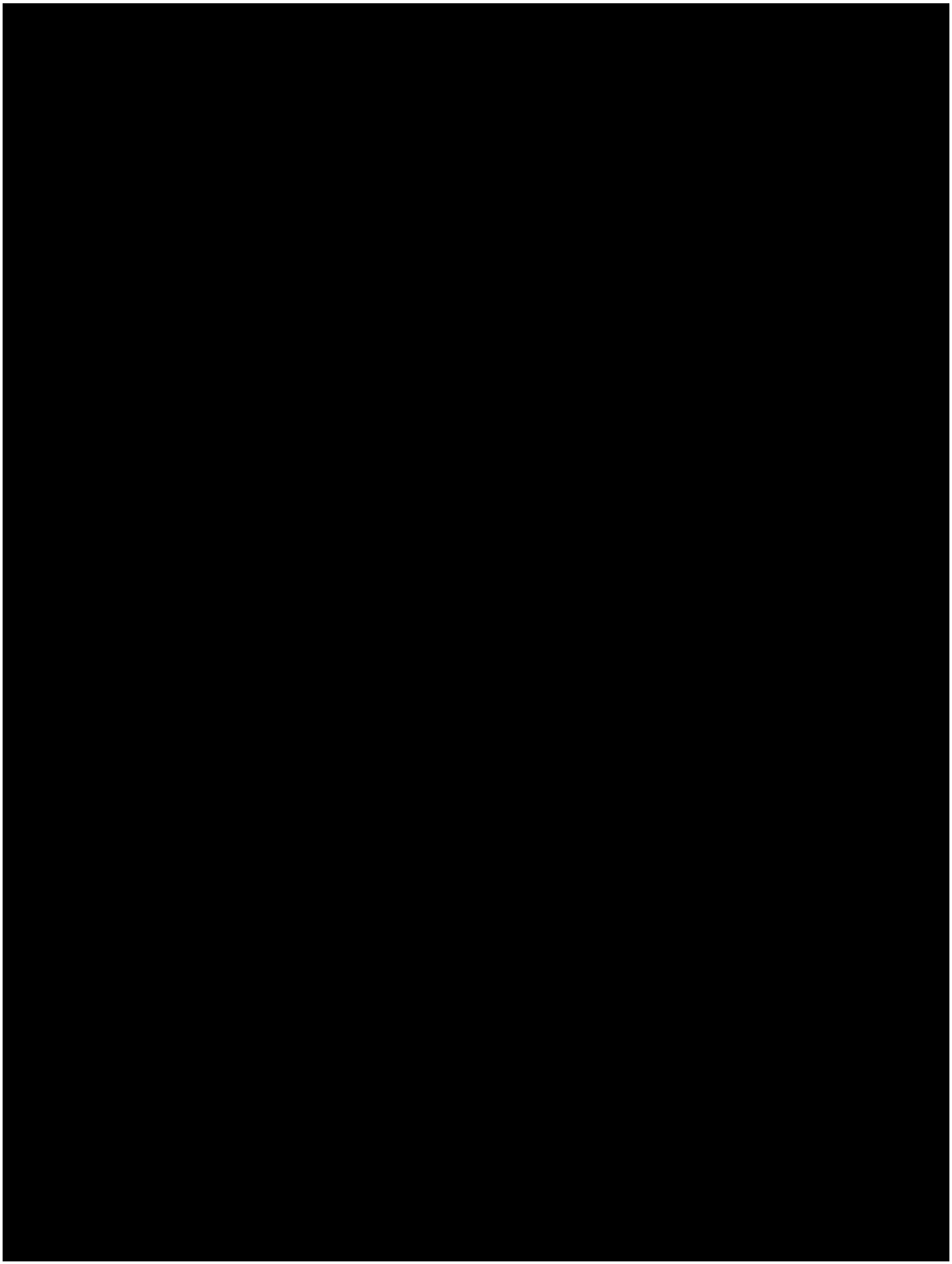


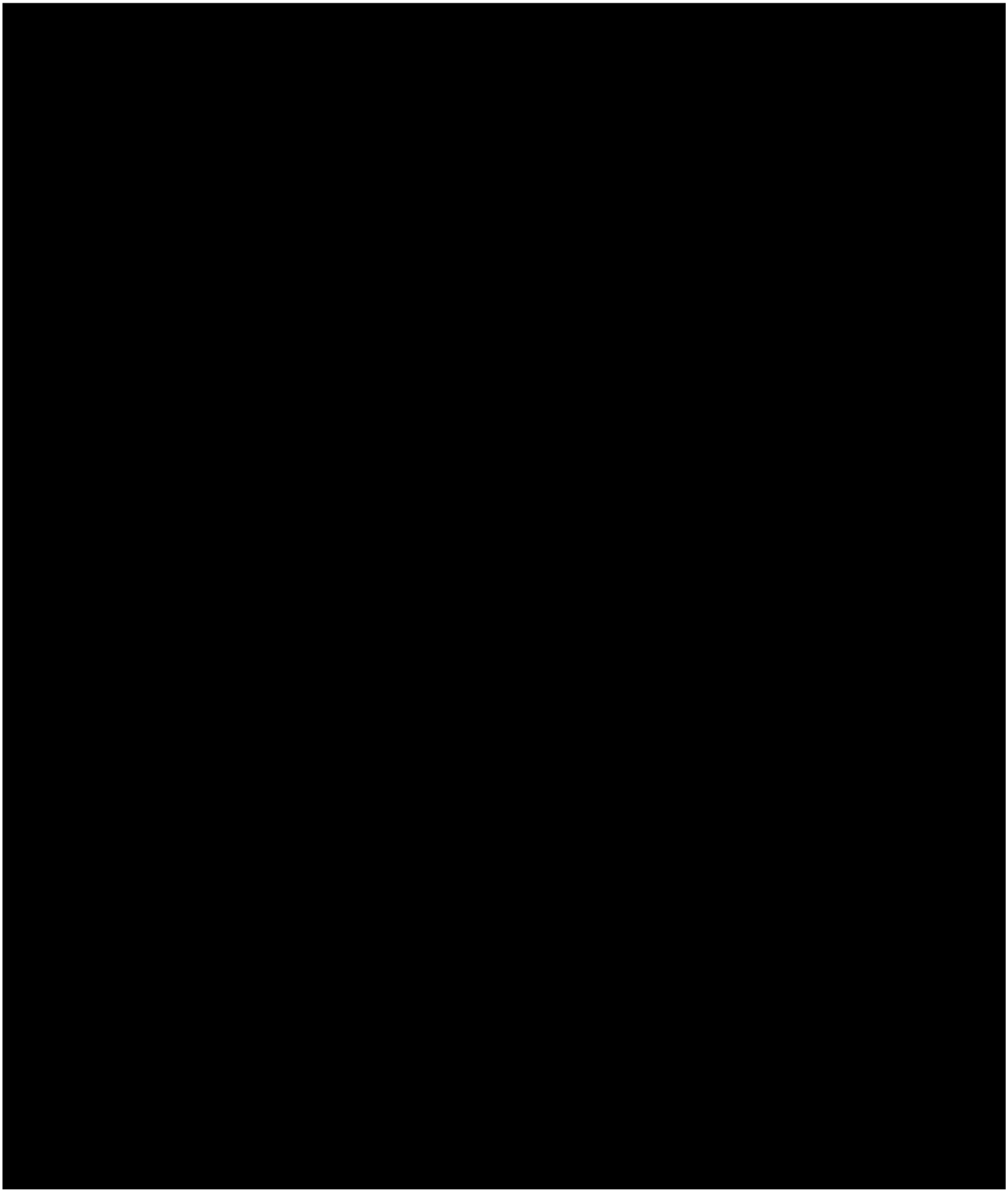


Appendix F
Delivery strategy

[redacted]











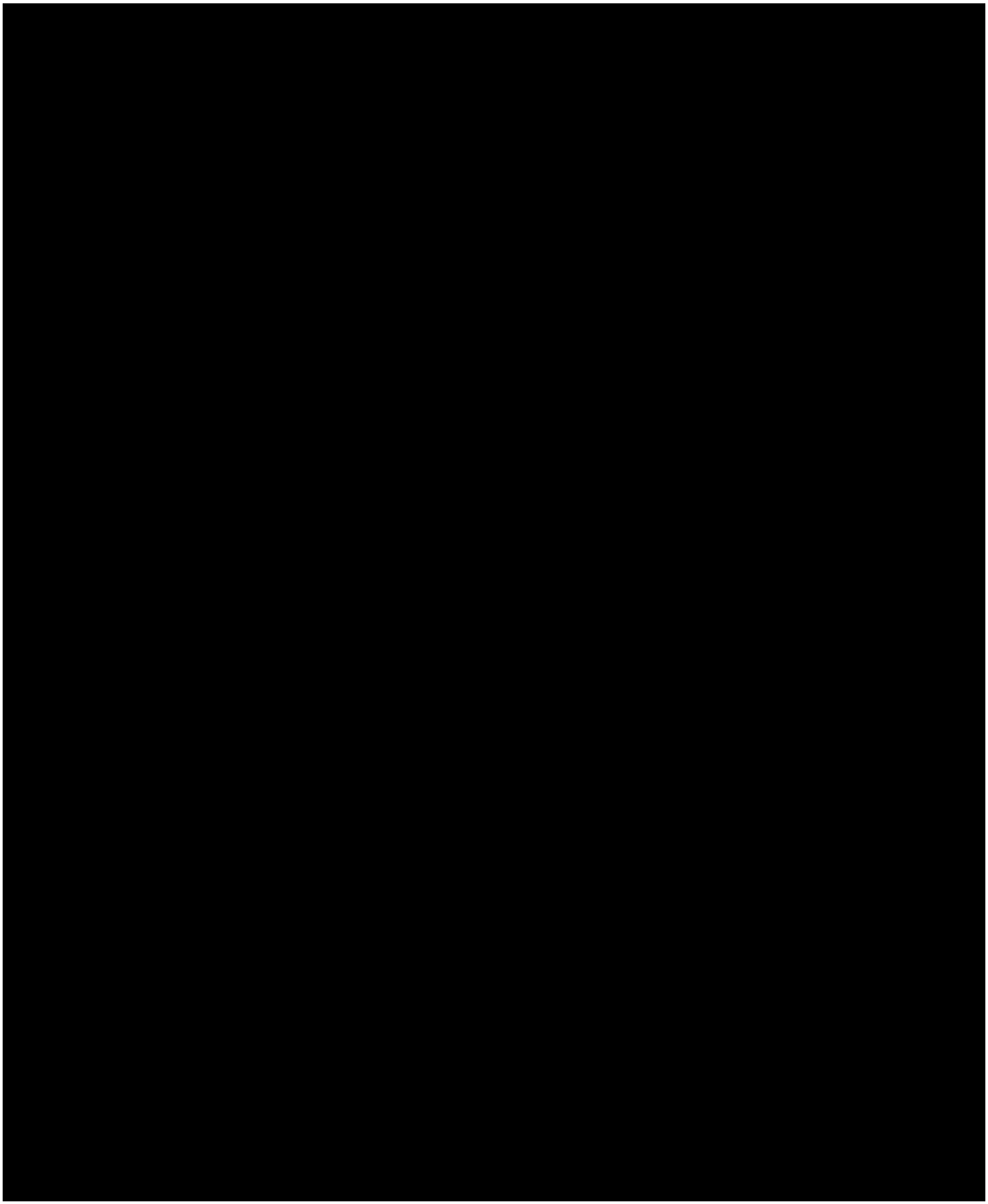


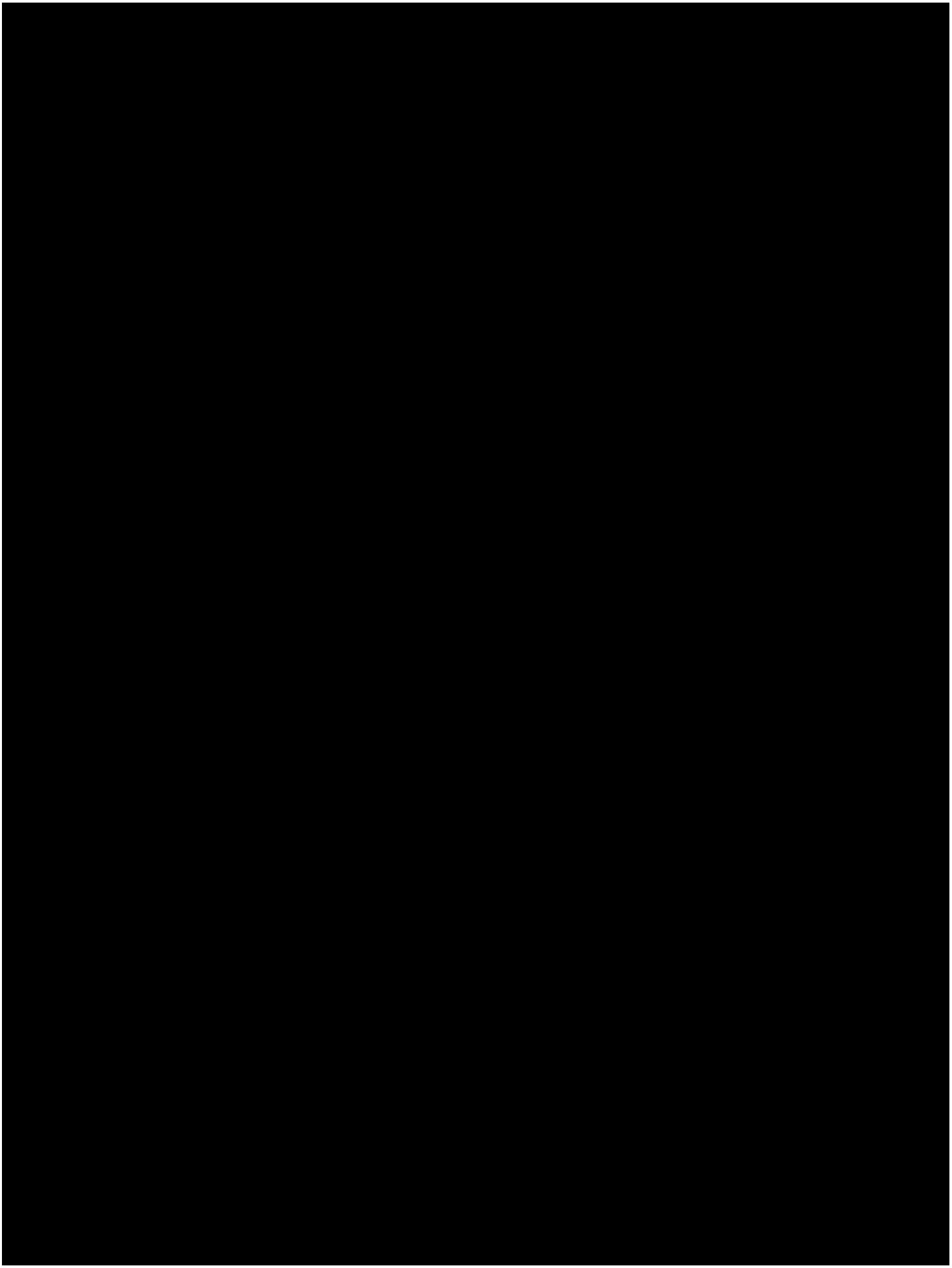


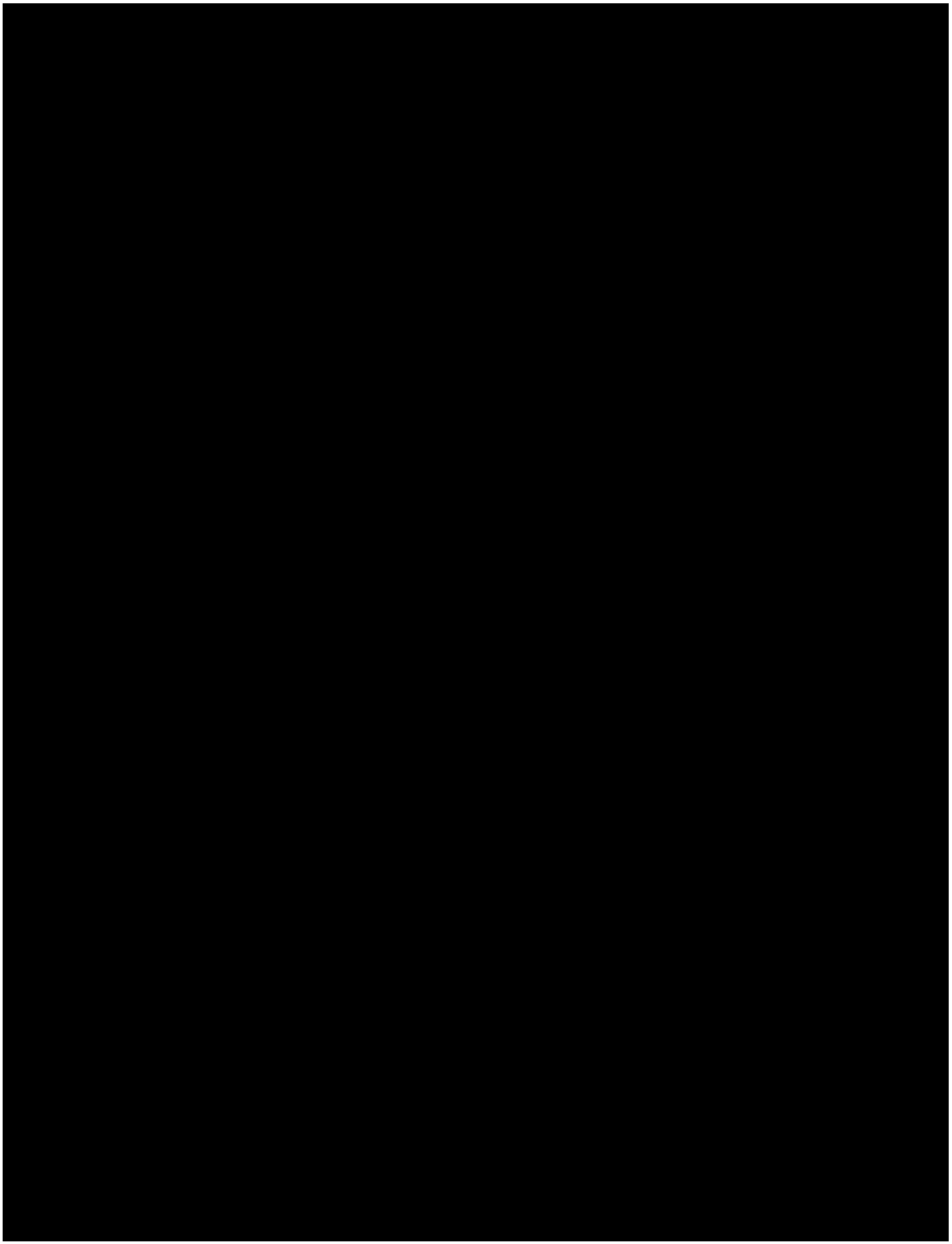
Appendix G
Cost model

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Appendix H
Cost assurance







Appendix I
National Grid costs

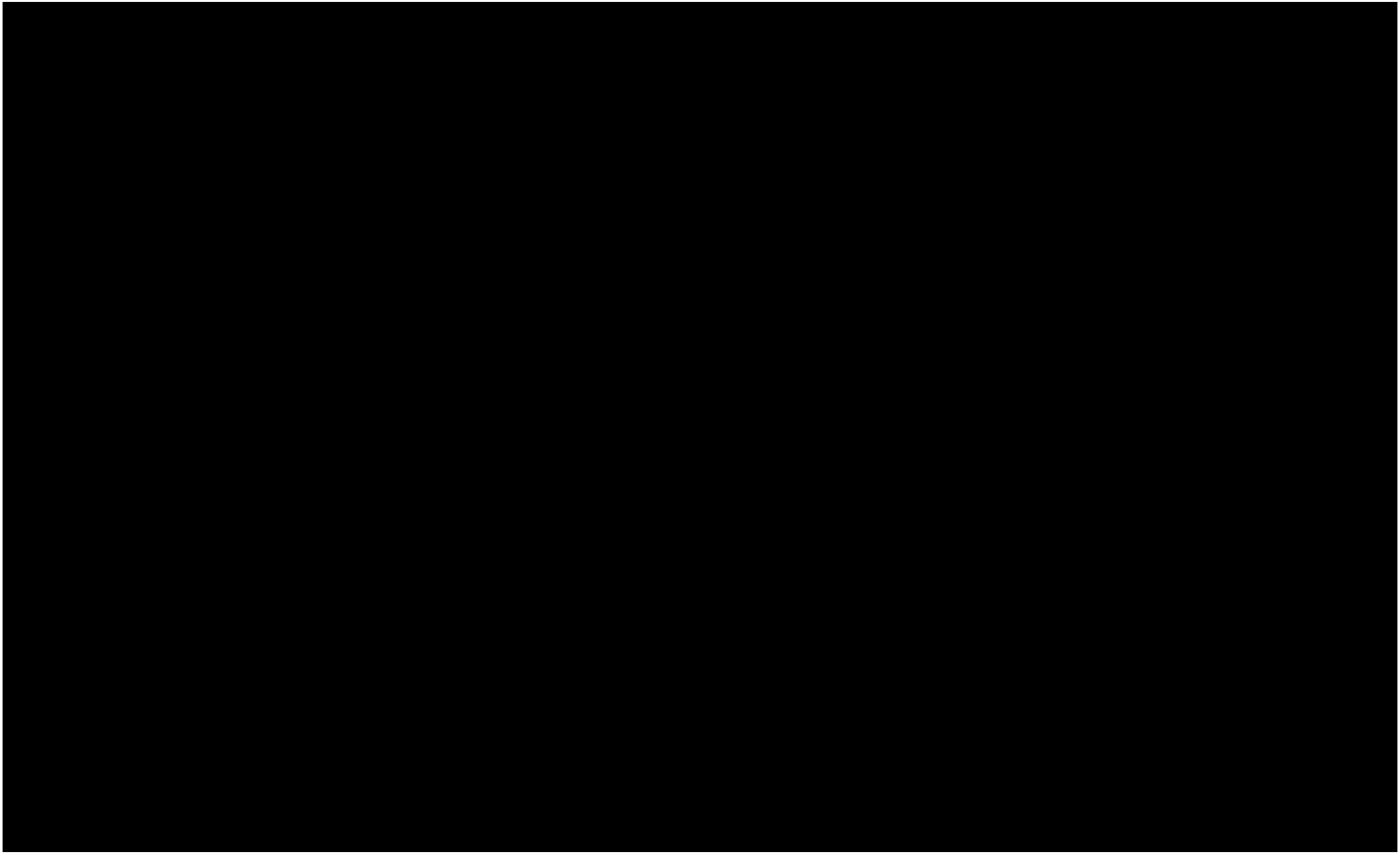
Document is supplied alongside this submission.

Appendix J
Cost benefit analysis

Document is supplied alongside this submission.

Appendix K
Programme timelines

Our programme timeline for this project is shown in the table below.



Appendix L
Benchmarking

Document is supplied alongside this submission.

Appendix M
Risk register

Document is supplied alongside this submission.

Appendix N
P6 programme

Document is supplied alongside this submission.

Appendix O
Procurement































Appendix P
RRP tables

Document is supplied alongside this submission

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