

Report

by the Comptroller and Auditor General

Department for Business, Energy & Industrial Strategy

The Nuclear Decommissioning Authority's Magnox contract

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Department for Business, Energy & Industrial Strategy

The Nuclear Decommissioning Authority's Magnox contract

Report by the Comptroller and Auditor General

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Sir Amyas Morse KCB Comptroller and Auditor General National Audit Office

29 September 2017

This report examines the facts surrounding the Magnox contract, from procurement through to the early termination of the contract, and the NDA's settlement of legal claims.

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Contents

What this report is about 4

Summary 8

Part One

Contract procurement, litigation and settlement 13

Part Two

Contract consolidation and termination 23

Part Three

Oversight and governance of the contract 29

Part Four

Cost to the taxpayer 45

Appendix One

Our audit approach 49

Appendix Two

The NDA's Framework Document 2013 51

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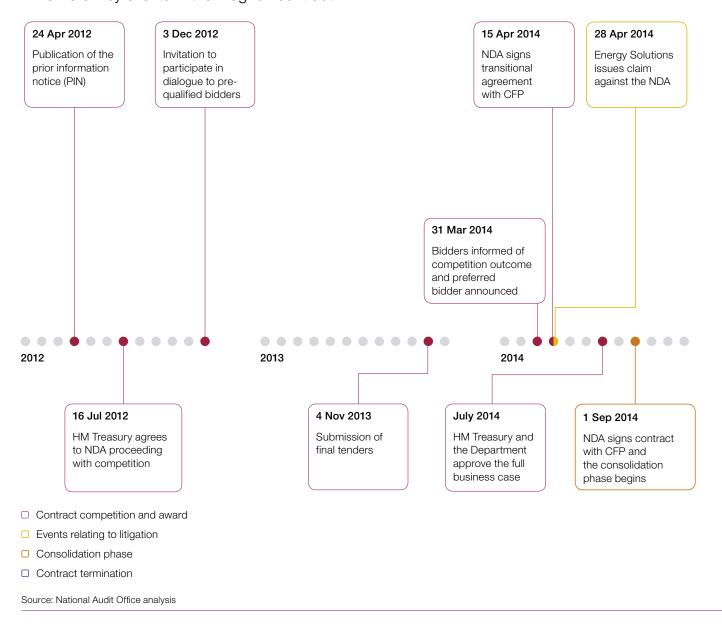
What this report is about

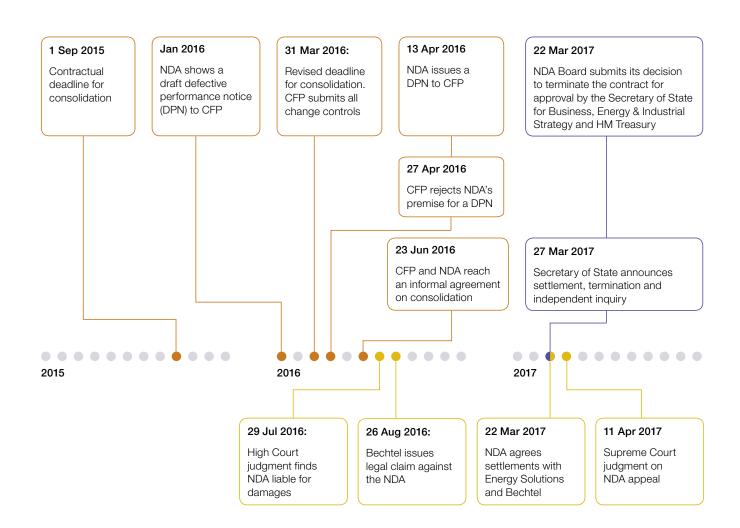
- 1 In 2005, the Nuclear Decommissioning Authority (NDA) was established as a non-departmental public body under the Energy Act 2004. Sponsored by the Department for Business, Energy & Industrial Strategy (the Department), the NDA is responsible for the operation, decommissioning and clean-up of 17 nuclear reactor and research sites in the UK.
- 2 Between 2012 and 2014, the NDA ran a competitive procurement exercise for services to decommission two nuclear research sites and 10 Magnox sites. The latter comprise power stations that were at, or nearing, the end of their operational life. With an estimated value of up to £6.2 billion, the 'Magnox contract' is among the largest by value put out to tender by HM Government.
- 3 In September 2014, the NDA awarded the 14-year Magnox contract to Cavendish Fluor Partnership (CFP). Energy Solutions, part of a consortium that bid for the contract but lost, lodged legal claims against the NDA. In July 2016, the High Court ruled that the NDA had wrongly decided the outcome of the procurement process. Following this ruling, Bechtel, the partner of Energy Solutions in the consortium, also launched proceedings against the NDA. In March 2017, the Secretary of State for Business, Energy & Industrial Strategy announced that the NDA had agreed settlements with Energy Solutions and Bechtel totalling £97.3 million. He also announced that the NDA had decided to terminate the contract with CFP nine years early due to a "significant mismatch" between the work specified in the tendered contract and the work that needs to be done. **Figure 1** on pages 6 and 7 summarises the main events.
- 4 The government has launched an independent inquiry into these events. The inquiry is tasked with establishing the root causes of the defective procurement and identifying lessons. It is expected to report to the Secretary of State in early 2018.

- 5 This report is intended to support the Committee of Public Accounts' consideration of the events surrounding the Magnox contract. It sets out the key facts relating to:
- the procurement process, the award, consolidation and termination of the contract, and the NDA's settlement of legal claims (Parts One and Two);
- the governance and oversight arrangements (Part Three); and
- the costs to the taxpayer (Part Four).

This report does not assess the design of the contract, NDA's compliance with procurement regulations or the reasons behind the High Court judgment. Our approach is set out in Appendix One.

Figure 1
Timeline of key events in the Magnox contract





Summary

Key findings

The Magnox procurement, litigation and settlement

- 1 The Nuclear Decommissioning Authority (NDA) ran a competitive procurement exercise for decommissioning services at 12 nuclear sites, resulting in the award of a 14-year contract for up to £6.2 billion. Through the 'Magnox contract', the NDA aimed to 'do the same for less' and give the contractor a stronger incentive to deliver savings for the taxpayer by replacing the existing cost-plus incentive fee contracts with a target cost incentive fee contract (TCIF). Under TCIF, the contractor's fee goes up if they are able to bring down the total costs of decommissioning, or down if the costs of decommissioning increase. HM Treasury approved the competition and contract award on the basis that the new contract would provide savings of at least 10% (paragraphs 1.3 to 1.6 and Figures 2, 3 and 4).
- 2 In July 2016, the High Court found that the NDA had wrongly decided the outcome of the procurement process; the NDA agreed to settle claims in March 2017. Energy Solutions, one of the incumbent contractors for the Magnox sites until 2014, unsuccessfully bid for the contract, and subsequently issued legal claims against the NDA for damages. The High Court found that, had the NDA applied its evaluation criteria correctly, the winning bidder, Cavendish Fluor Partnership (CFP), would have been excluded from the competition. It also found that, with respect to record-keeping, the NDA had breached its obligation under public contracting regulations to act in a transparent way. The NDA agreed settlements totalling £97.3 million (paragraphs 1.7 to 1.15, and Figures 6, 7 and 18).

Contract consolidation

3 While defending the legal claims against its award of the Magnox contract, the NDA progressed a complex process of contract consolidation with CFP. The NDA describes this contractual process as a "trueing-up" between what the contractor was told to expect and what it actually found on taking over responsibility for the sites. This phase was included in the contract because the NDA recognised that the state of the 12 sites – and therefore the nature, scope and cost of work – could be different to what was expected at the outset of the competition. Only by concluding this consolidation process could the NDA agree what fee to pay CFP and determine whether it could achieve the 10% savings target set by HM Treasury (paragraphs 2.1 and 2.2).

- **During consolidation, the expected costs of decommissioning the Magnox sites increased from £3.8 billion in CFP's winning bid in 2014 to £6.0 billion in 2017.** The NDA attributes £0.7 billion of this increase to a revised understanding of the volume of waste and asbestos on the sites, which the NDA says could not be quantified before work under the contract began. Of the remaining £1.5 billion of cost increases, £1.0 billion was forecast by the NDA at the time it awarded the contract, but £0.5 billion was not expected. The NDA does not know to what extent this unexpected additional cost reflects inaccurate assumptions about the state of the sites in 2012, when the contract baseline was established, or potential underperformance by the previous contractor between 2012 and 2014. The NDA's internal audit function reported in March 2017 that there was "a risk that the NDA may have paid for work which has been incorrectly reported as completed by the previous contractor". Since this interim internal audit report was published, the NDA has not undertaken any work to establish whether it may have
- 5 The contract provided for the consolidation process to last 12 months and conclude by September 2015, but the process continued without resolution until March 2017. The NDA agreed to extend the contractual deadline to complete consolidation from September 2015 to March 2016 because of the volume and complexity of the changes required. In June 2016, NDA executives notified the NDA Board that they had reached an informal agreement with CFP to conclude consolidation, but that some details still had to be finalised. However, the NDA subsequently decided not to formalise this agreement after receiving legal advice, and after the High Court judgment in July 2016 caused the oganisation to reduce its risk appetite. In December 2016, NDA Board minutes noted the risks associated with "reaching an agreement which is not in line with the mechanisms envisaged in the contract" (paragraphs 2.3 to 2.6, 2.11 and Figure 8).

paid for work that was not performed (paragraphs 2.7 to 2.10, 3.19 and Figure 9).

Contract termination

- 6 From May 2016 onwards, the NDA received legal advice on the risk of legal challenge created by the changes proposed to the contract since it was awarded in 2014. The volume of changes proposed to the contract left the contract vulnerable to legal challenge, and the NDA's proposed approach to concluding consolidation in June 2016 would have made it more difficult to defend any legal challenge on the grounds of material variation to the contract (paragraphs 2.11 and 2.12).
- 7 In March 2017, the Secretary of State announced the NDA's decision to terminate the contract with CFP nine years early. On 29 September 2017, the NDA, with approval from the Secretary of State, served a notice of termination to CFP effective from 1 September 2017, allowing for a 24 month notice period, ending 31 August 2019. The NDA is considering options for how the Magnox sites should be managed once the contract with CFP comes to an end. These include competing a new contract, or as with its Sellafield site, bringing the site licence company into the NDA's direct control (paragraphs 2.13 and 2.14).

Governance and oversight

- 8 For the procurement, the NDA Board relied on internal audit, external assurance reviews and legal advice that did not detect the problems later identified in the High Court judgment.
- Two internal audits and four external assurance reviews rated the procurement process as 'green' or 'amber green'. The reviews did not examine whether the evaluation of the bids adhered to public contracting regulations. The NDA did not commission further assurance reviews of the evaluation process or outcome of the competition after it became aware of Energy Solutions' legal claims.
- The NDA's Competition Programme Board, with representatives from HM Treasury, UK Government Investments (UKGI) and the Scottish Government, approved key documents, including the evaluation design and tender evaluation report, before they were approved by the NDA Board. The Department for Business, Energy & Industrial Strategy (the Department) and HM Treasury approved the decision to award the contract to CFP. The decision was also endorsed by the Scottish Government.
- The NDA requested and received two letters of comfort from its legal advisers, Burges Salmon. In the first, Burges Salmon noted that as of September 2013, the NDA had complied with its obligations under public contracting regulations. In the second, dated March 2014, Burges Salmon set out its involvement in the competition process, which included a review of all the NDA competition team's evaluation scores against evaluation comments to check they were consistent. Burges Salmon confirmed that, subject to the NDA evaluators reviewing and acting on their advice, they were "not aware of any reason" for the NDA not to appoint CFP (paragraphs 3.1 to 3.12 and Figures 10 to 12).
- 9 For the consolidation process, certain formal governance arrangements were not in place until August 2015, a month before the contractual deadline to complete the process. HM Treasury approved the contract award and share transfer to CFP in July 2014 subject to the NDA establishing an appropriate approval process for change controls through a Change Control Board (CCB) to supplement its existing change control review and approval processes. A review by the Major Projects Authority (MPA) in June 2014 also highlighted the need for the adequate governance of change controls. The CCB, tasked with overseeing the process, did not meet until eight months into what was meant to be a 12-month process. The CCB's terms of reference were agreed 11 months into the process. NDA executives also told us that responsibilities between the teams managing the consolidation phase overlapped, as did the responsibilities of NDA executives, which was unhelpful (paragraphs 3.13 to 3.16 and Figure 13).

Three reviews commissioned by the NDA assurance director cited significant risks with the consolidation process from December 2015.

The reviews were shared with the programme's senior responsible officer and the NDA's chief financial officer, but the NDA Board was only informed of findings from the third review. In March 2017 an NDA interim internal audit report highlighted weaknesses with the quality of communication between NDA executives and the NDA Board during consolidation (paragraphs 3.17 and 3.18 and Figure 14).

The Department and UKGI were aware of delays to the consolidation process and that the cost of the contract was likely to increase, but raised no formal concerns to ministers until August 2016. HM Treasury and UKGI told us that they were concerned about the delays in consolidation, but relied on the NDA's assurances that a resolution would be achieved. From October 2016, a cross-government group of senior officials, including the chief executive of the civil service and officials from HM Treasury, the Department, UKGI and Government Commercial Function, met seven times to discuss the issues the NDA faced with litigation and consolidation (paragraphs 3.20 to 3.24).

Costs to the taxpayer

- 12 We estimate that the Magnox contract cost the taxpayer upwards of £122 million. The NDA agreed to settle legal claims with Energy Solutions and Bechtel at a cost of £97.3 million. It also spent £13.8 million on legal and external advisers. Of this, £3.2 million was spent on the competition and £8.6 million was spent on legal fees in the ensuing litigation. The NDA estimates that in-house staff time has cost £10.8 million. This excludes the cost of staff time of senior central government officials who were heavily involved in decisions, particularly about the NDA's settlement and its decision to terminate the contract. It also excludes the costs of the government's independent inquiry (paragraphs 4.1 to 4.5 and Figures 15 to 18).
- 13 Before terminating the contract, the NDA forecast 13% cost savings (£904 million). The NDA believes that, so far, CFP has reduced costs by around £255 million relative to the old contracts. We have not audited these figures. The NDA expects further savings to be made, but cannot yet verify the level of cost savings that could potentially be achieved by September 2019 (paragraphs 4.6 and 4.7).

Concluding remarks

- Competitive procurement to appoint commercial partners to manage nuclear sites is central to the NDA's strategy. The NDA's fundamental failures in the Magnox contract procurement raise serious questions about its understanding of procurement regulations; its ability to manage large, complex procurements; and why, despite a number of internal and external assurance reviews, audits, and legal advice, the errors detected by the High Court judgment were not identified earlier.
- In addition to the failed procurement, the NDA faced serious problems after it awarded the contract to CFP. It is clear that the NDA had a poor understanding of what was happening on its estate: six sites were behind schedule at the time the NDA let the contract, and the NDA's assumptions about the work needed on the sites have proven to be inaccurate. The NDA's commercial strategy of using a target-cost contract, predicated on having a good understanding of the scope of work, now appears wholly inappropriate. It is time for the NDA to re-evaluate its commercial strategy and its capability to execute it, supported by expertise in government.
- 16 As the NDA's sponsoring body, the Department must make an informed judgement about the extent and structure of the oversight it maintains over the NDA. The extensive challenges the NDA faced – from procurement through to the early termination of the Magnox contract - raise urgent questions about the Department's oversight of one of the largest contracts ever let by government. For example, the Department knew the proposed changes to the contract would have significant cost implications, but it did not make itself sufficiently aware of the scale of those costs for nearly two years. In light of these issues, the Department must consider whether its governance and oversight arrangements surrounding the NDA are sufficiently clear and effective in providing the scrutiny and assurance it requires to meet the standards expected in managing public money.

Part One

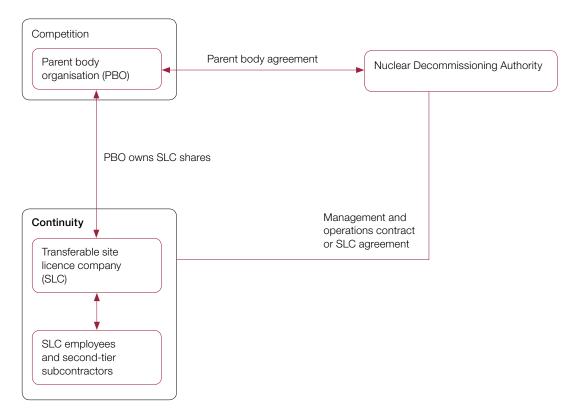
Contract procurement, litigation and settlement

Overview of the Nuclear Decommissioning Authority

- 1.1 In 2005, the Nuclear Decommissioning Authority (NDA) was established as a non-departmental public body under the Energy Act 2004. Sponsored by the Department for Business, Energy & Industrial Strategy (the Department), the NDA is responsible for the operation, decommissioning and clean-up of 17 nuclear reactor and research sites in the UK.
- 1.2 The NDA discharges its decommissioning responsibilities through contracts with site licence companies (SLCs). These manage the sites by performing and subcontracting the work. Most SLCs are in turn owned by a parent body organisation (PBO), a consortium of private sector firms that bid for the temporary ownership of the SLC through open competition. PBOs are expected to provide business leadership to the SLC, and drive forward efficient progress on the sites. The winning PBO owns the shares in the SLC for the duration of the contract (Figure 2 overleaf).
- 1.3 Between 2012 and 2014, the NDA ran a competitive procurement exercise to appoint a PBO to run two SLCs. The new contract would replace a contract with UKAEA Ltd to decommission two research sites and a contract with Energy Solutions to decommission 10 Magnox power stations that were at, or near, the end of their operational life (Figure 3 on page 15). With an estimated value of up to £6.2 billion, the 'Magnox contract' is among the largest by value put out to tender by HM Government.

The Magnox competition was the last in a series of PBO competitions that the NDA had completed across its estate. The first PBO competition was for the Sellafield site, followed by the Low Level Waste Repository, then Dounreay. The overall strategy for the NDA's programme of PBO competitions was approved by the Major Project Review Group in 2008.

Figure 2NDA's management of decommissioning through SLCs and PBOs



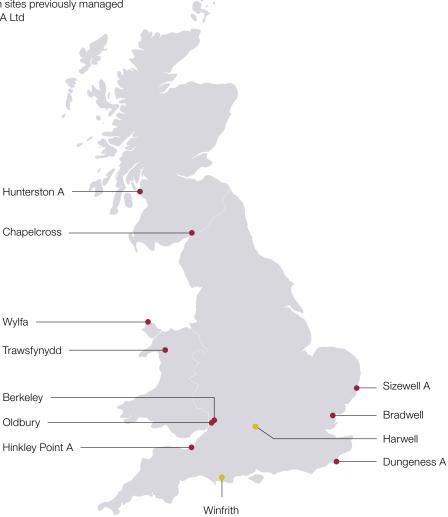
Notes

- 1 In April 2015 the NDA decided to bring the SLC managing the Sellafield site back under its direct control, removing the role of the PBO from its management model for the Sellafield site.
- 2 The NDA manages the Capenhurst and Springfields sites through decommissioning contracts and commercial arrangements.

Figure 3

The 12 sites included in the Magnox contract

- Power plants previously managed by Energy Solutions
- Research sites previously managed by UKAEA Ltd



Note

Under the previous contractual arrangements, two separate site licence companies (SLCs) existed for the two research sites and the 10 power plants. After the contract was awarded in 2014, the two SLCs were merged into one, called Magnox Ltd. The PBO for Magnox Ltd is Cavendish Fluor Partnership.

The NDA's contracting strategy

- **1.4** Through the Magnox competition, the NDA aimed to deliver its decommissioning strategy for the sites at a lower cost than the previous contracts. The NDA estimated that, had it renewed the previous contracts, the decommissioning costs would have been $\mathfrak{L}6.9$ billion over a period of 14 years (not including the costs of dealing with waste and asbestos on the sites), whereas a newly awarded contract would cost $\mathfrak{L}6.2$ billion. HM Treasury provided approval for the NDA to conduct a PBO competition on the basis that the new contract would achieve cost savings of at least 5% on this $\mathfrak{L}6.2$ billion baseline. HM Treasury later increased this target to 10% in the 2013 Spending Round.
- 1.5 The NDA planned to achieve savings in two ways. It aimed to unlock economies of scale by tendering the contract to a single PBO. It also decided to replace the existing cost-plus incentive fee contracts with a target cost incentive fee contract. In a cost-plus contract, a contractor is reimbursed for all its allowed costs, and paid a fee regardless of how large the costs of decommissioning are. In a target cost incentive fee contract, the contractor is also reimbursed for all its allowed costs, but the contractor's fee goes up if it can bring the costs of decommissioning down below an agreed target cost. The fee reduces if the costs of decommissioning increase (Figure 4).

Figure 4

Comparison of the previous contracts with the Magnox contract

The new contract was designed to provide an additional incentive for the contactor to control costs

Payment mechanism	Old 'cost plus' contracts	New 'target cost incentive fee' contract
Contractor recovers costs of decommissioning work in full from the NDA	Yes	Yes
Contractor earns fee conditional on meeting key milestones	Yes	Yes
Contractor's fee goes up if work is delivered at lower cost, and down if work is delivered at higher cost	No	Yes
Expected cost	£6.9 billion over 14 years, not including additional costs of waste and asbestos	£6.2 billion ¹ , not including additional costs of waste and asbestos

Note

1 HM Treasury gave the NDA approval for the competition on the basis that the contract would need to cost 10% less than the NDA's initial expectation of £6.2 billion, that is, £5.6 billion or less.

1.6 The NDA believed it had the prerequisites to let a target-cost contract successfully: it thought the plan for decommissioning the sites was robust, with a defined scope and indicative schedule. The NDA told all bidders to use certain key assumptions from its plan in order to ensure that they were all competing on a "level playing field". It did not assure these assumptions before the competition (paragraph 2.9). The NDA's contracting strategy allowed for a process of adjusting the target cost after the contract had been awarded (Part Two). **Figure 5** overleaf sets out the NDA's intended phases of the contract and the events as they materialised.

Awarding the contract

1.7 The NDA formally began the competition in April 2012.² Four consortia submitted final tenders, and bids were evaluated against more than 700 individual evaluation criteria. On 31 March 2014, the NDA announced that its preferred bidder was Cavendish Fluor Partnership (CFP), which had the highest score of 86.48%. Reactor Site Solutions (RSS), comprising Energy Solutions (the incumbent contractor for 10 of the 12 sites) and Bechtel, achieved the second-highest score of 85.42%. The NDA signed a transition agreement with CFP on 15 April 2014 and went on to award the contract on 1 September 2014.

Legal challenges to the procurement process

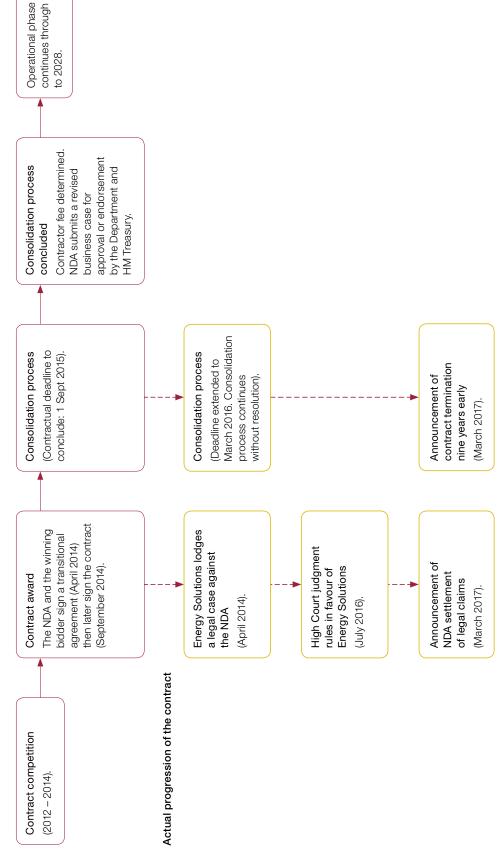
1.8 Energy Solutions (as part of the RSS consortium) wrote to the NDA on 6 April 2014, expressing concerns about the evaluation process. A series of letters between the NDA and Energy Solutions were exchanged during a 14-day 'standstill' period. The standstill period is defined in public procurement law as the period of time after notification of intention to award a contract. Energy Solutions issued a legal claim for damages after the standstill period.³ The claims alleged that the NDA had breached public contracting regulations during the evaluation process. Energy Solutions contended that, had it not been for these breaches, RSS would have been awarded the contract, and that it was therefore entitled to its share of the fees RSS would have earned. Energy Solutions also claimed for other costs such as loss of reputation.

² In April 2012 the NDA issued a prior information notice (PIN), which informs the market of the intention to award a contract. Planning for the competition began before the PIN was issued.

³ Public contracting regulations stipulate that if a legal claim is issued within the standstill period then the contracting authority cannot enter into the contract until a decision has been made in court. Legal claims issued after the standstill period can only be claims for damages.

Figure 5
Planned phases of the Magnox contract and actual events

Planned phases of the Magnox contract at the outset



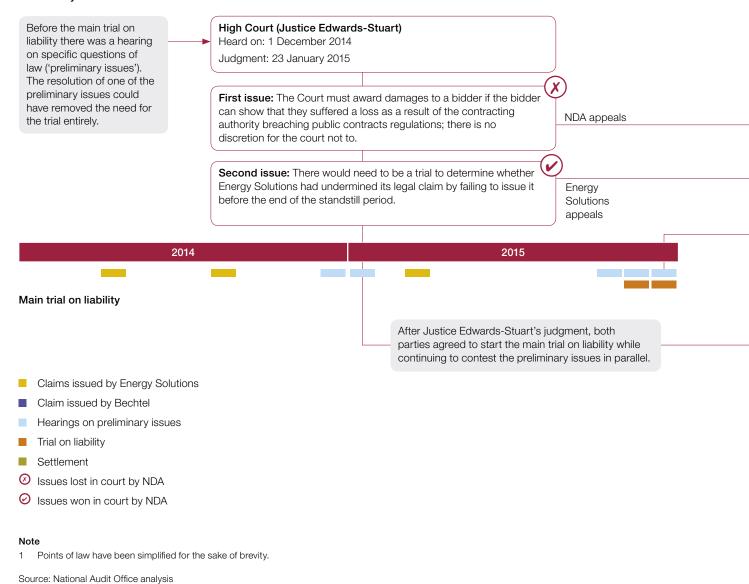
Planned phases of the Magnox contract

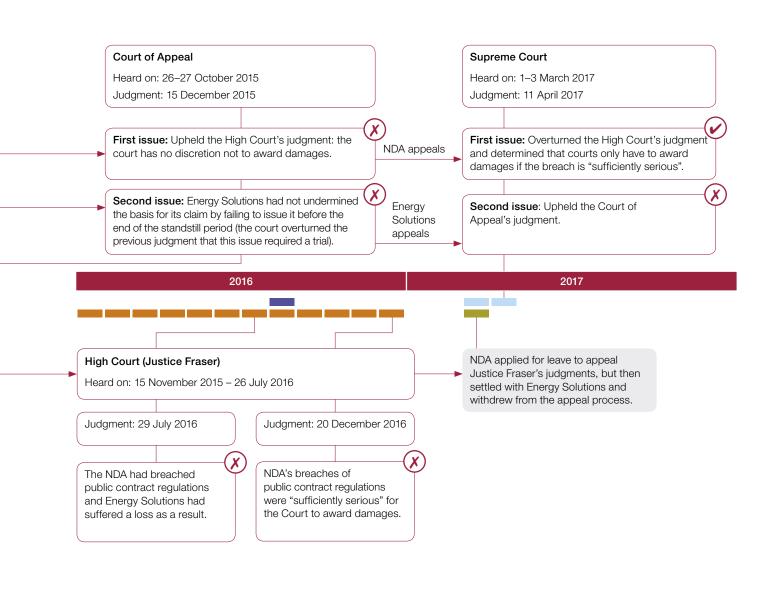
Actual progress of the contract

- 1.9 The NDA recognised the risk of legal claims following the end of the procurement process as early as July 2012. However, NDA executives believed that the evaluation process was robust; after taking ongoing legal advice on its prospects of success and of the associated risks, the NDA decided to defend the claims in court. A series of hearings took place over two and a half years. The Department, UK Government Investments (UKGI) and HM Treasury were kept informed of the progress of litigation through regular reporting (Figure 6 on pages 20 and 21).
- 1.10 In July 2016 the High Court found that the NDA had wrongly decided the outcome of the procurement process. In summary, the judgment found that:
- the NDA had made manifest errors in the application of its evaluation process;
- had the NDA applied its evaluation criteria correctly, the winning bidder (CFP) would have been excluded from the competition;
- NDA staff were aware that their criteria implied that this bidder should be excluded, but manipulated the evaluation in order to avoid that outcome; and
- the NDA sought to limit the permanent record of what occurred during the evaluation to the absolute minimum of information, contrary to the legal duty of all contracting authorities to act in a transparent way.
- 1.11 The Court found that the NDA had not correctly applied pass/fail criteria known as 'threshold requirements'. These requirements exclude bidders from the competition for failing to include specific details (such as graphics) in their bid. The Court found that the NDA's evaluation team realised that the effect of applying the threshold criteria would be to exclude CFP from the competition. Therefore, the team manipulated the scores to avoid that outcome. The NDA told us that the evaluators believed they had the discretion to amend the scores lawfully at the time.
- 1.12 The judgment also criticised the NDA for its approach to record-keeping. It found that the NDA had made no notes of conversations detailing the evaluators' approach to threshold criteria, and that these conversations were pivotal in determining the outcome of the competition. The judge also found that the NDA restricted its record-keeping as it was "acutely aware" of the possibility of unsuccessful bidders challenging the outcome of the competition. NDA officials told us they believed their approach to record-keeping was in line with best practice at the time.

Summary of the litigation process

Preliminary issues





The NDA's decision to settle legal claims

- 1.13 After the High Court judgment, Bechtel, the majority partner in the consortium, also issued a claim against the NDA. The NDA and the Department also received notifications from other bidders asking for the return of their bid cost, but the Department told us that these requests were without merit and have been turned down.
- 1.14 In response to the High Court judgment, the chief executive of the civil service chaired a series of seven meetings with senior officials across government. These officials included the Department's accounting officer, legal advisers, the government's chief commercial officer, and representatives of HM Treasury and UKGI. The chief executive of the NDA was also present in four of these meetings. This group received legal advice on the prospects of successfully appealing the judgment.
- 1.15 In March 2017, the NDA Board decided to settle with Energy Solutions and Bechtel. This decision was approved by HM Treasury and the Department, supported by UKGI. The NDA agreed to settle with Energy Solutions for £85 million including legal costs, and with Bechtel for £12.3 million including legal costs. The NDA and the Department's assessment was that the settlement offered value for money in light of the risk of a greater quantum of damages being awarded by the courts. An additional reason was the burden the litigation was placing upon the NDA (Figure 7).

Figure 7 Claims by Energy Solutions and Bechtel, and NDA settlements

	Energy Solutions	Bechtel
Claim	£176 million – £201 million¹	
NDA's potential exposure to ongoing legal costs of claimant, if case not settled	£6 million – £7 million	Claim not specified. Bechtel was the larger partner in the RSS consortium
Total potential exposure	£182 million – £208 million	
Settlement offer made by bidder	£113.5 million	Approximately £12.5 million (\$15 million plus £0.5 million in legal costs)
Settlement agreed	£85 million	£12.3 million (\$14.8 million plus £0.5 million in legal costs)

Note

Energy Solutions also claimed for additional damages to reflect the increased value of the contract after consolidation, but had not quantified this additional amount.

Source: National Audit Office analysis of UK Government Investments submission to ministers

Part Two

Contract consolidation and termination

The consolidation process

- **2.1** In September 2014, while defending the legal claims against its award of the Magnox contract to Cavendish Fluor Partnership (CFP), the Nuclear Decommissioning Authority (NDA) began the process of contract consolidation. As with previous NDA competitions for parent body organisations (PBOs), this phase was included in the contract because the NDA recognised that the state of the 12 sites, and therefore the nature, scope and cost of the work, could be different from what was expected at the outset of the competition. The NDA expected differences to arise from:
- unavoidable uncertainty about the work required on the sites at the time the contract
 was tendered. For example, it can be unclear how much waste is contained within
 part of a site and how radioactive it is until work has begun to retrieve that waste; and
- changes to the sites as the incumbent PBO carried out decommissioning work while the competition was under way.
- 2.2 During the consolidation phase, the contractor raises requests to change the contract, known as 'change control requests'. The NDA considers these requests and approves or rejects them. The approved changes are then incorporated into the contract and the lifetime plans for the sites. This enables the NDA to calculate the fees to be paid to the contractor and to track benefits, including savings, against the agreed contract cost and lifetime plan as the work progresses. Without completing consolidation, the NDA would be unable to agree a final contract programme and target cost. After concluding the consolidation process, the NDA would have been required to submit a revised business case to HM Treasury and the Department for Business, Energy & Industrial Strategy (the Department) for endorsement (if the contract met HM Treasury's 10% savings target) or approval (which was only required if the target was not met). Contractually, CFP was required to complete consolidation by 1 September 2015, 12 months after it was awarded the contract.

⁴ The NDA requires site licence companies (SLCs) to develop and maintain lifetime plans that set out the scope of work to be delivered, the schedule for delivery and the estimated costs.

Delays in the consolidation process

- 2.3 By January 2015, CFP had notified the NDA that the degree of change on the sites was much greater than it had been told to expect. By March 2015, CFP had not submitted any change control requests with cost implications, and the NDA's chief executive and NDA Board became aware of the risk that CFP would miss the contractual deadline to complete the consolidation.⁵ Because of the magnitude and complexity of the changes required, the NDA agreed to extend the deadline for completing consolidation to 31 March 2016, provided that it received all of CFP's change controls by that date. CFP complied with this request, submitting 95 change control requests with cost implications.⁶ The NDA later estimated the value of these change controls at £1.9 billion. In addition, CFP requested a further £0.3 billion, which was attributed to omissions in CFP's bid. These change control requests were treated differently for the purposes of calculating the fee.
- 2.4 In April 2016, the NDA formally issued CFP with a defective performance notice (DPN) after sharing a draft version in January 2016. The DPN was the primary measure for dealing with performance issues as set out in the contract. The draft notice cited: a failure to maintain an accurate and complete change control programme; failure to adhere to consolidation timescales and deadlines; change control proposals that did not meet requirements; and a failure to address concerns raised at working level. In a letter dated 27 April 2016, CFP rejected the NDA's premise for issuing a DPN. The number of change controls submitted by CFP increased after the draft DPN was issued, but the consolidation process continued unresolved for more than a year as the NDA and CFP failed to agree on CFP's fee (Figure 8).
- 2.5 NDA executives then pursued an approach they termed 'conditional approval'. This enabled the NDA to accept all change controls, subject to reaching agreement on outstanding issues such as CFP's contingency estimates. An assurance review commissioned by the NDA in April 2016 advised NDA executives against this approach on the grounds that the contract only allowed for it in a limited way. NDA executives told us they wanted to avoid terminating the contract, which was the only contractual option left at the NDA's disposal, because they believed CFP was making good progress on the sites.
- 2.6 In June 2016, NDA executives reported to the NDA Board that they had reached an informal agreement with CFP to conclude consolidation through which CFP could resubmit its change controls and come to an agreement on its fee. They advised that some details still needed to be finalised. The NDA subsequently decided not to finalise this agreement after the High Court judgment in July 2016 caused the organisation to reduce its risk appetite. In December 2016, NDA Board minutes noted the risk associated with "reaching an agreement which is not in line with the mechanisms envisaged in the contract" (see paragraph 2.11).

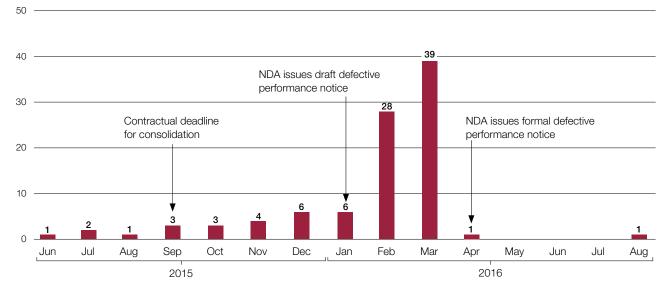
⁵ A number of cost-neutral change control requests were submitted before March 2015.

⁶ Cavendish Fluor Partnership submitted two change control requests after 31 March 2016 with NDA's agreement.

Cavendish Fluor Partnership's (CFP's) progress with submitting change control requests

CFP submitted the majority of change controls requests in February and March 2016

Number of change control requests submitted



Note

1 This figure only shows the change control requests submitted by CFP that had an impact on decommissioning costs and/or fees. Other change controls that did not have cost implications were also submitted.

Source: National Audit Office anlaysis of Nuclear Decommissioning Authority data

Increases in the cost of the contract

2.7 At the outset of the competition, the NDA estimated the value of the contract at $\mathfrak{L}6.2$ billion. CFP's winning bid estimated the cost of decommissioning the Magnox sites at $\mathfrak{L}3.8$ billion. The other three bidders' estimates ranged from $\mathfrak{L}4.1$ to $\mathfrak{L}4.4$ billion. The NDA expected all bidders' cost estimates to increase; the competition business case highlighted the risk that bidders could bid low and subsequently revise their cost estimates upwards through the consolidation process. When it awarded the contract in September 2014, the NDA estimated that costs could be $\mathfrak{L}4.8$ billion (not including waste and asbestos), based on CFP's bid cost plus $\mathfrak{L}997$ million in contingency funding. Of this contingency total, the NDA estimated that it would require $\mathfrak{L}417$ million to cover differences in the state of the sites compared with the bidding assumptions, plus $\mathfrak{L}180$ million for central contingency. The remaining $\mathfrak{L}400$ million of contingency related to future phases of the contract.

⁷ The Magnox contract was designed to be delivered in two phases over 14 years. In its contingency budget, the NDA estimated that it might require £597 million to cover unexpected costs in phase one, and £400 million for phase two.

- 2.8 By March 2017 the NDA's estimate of the costs had risen to £6.0 billion (Figure 9). The difference between this figure and CFP's bid of £3.8 billion consists of:
- £0.3 billion relating to work that CFP should have identified when performing site visits as part of the competition, but erroneously overlooked. The NDA will pay for the cost of performing this work, but will not pay CFP a fee for it, in line with the contractual arrangements for bid omissions;
- £0.7 billion relating to uncertainty about the volume of waste and asbestos on the sites. The NDA says that these costs were expected and would have materialised regardless of the winning bidder as it is not possible to identify an accurate value at the time of contracting; and
- £1.2 billion relating to the NDA's over-optimistic assumptions about the state of the sites when it tendered the contract. This was £0.2 billion more than NDA's previous contingency estimate for extra scope, which was £997 million. Sites were in different states than bidders had been told to expect, with six out of the 12 sites behind schedule. For example, the Bradwell site was four years behind schedule at the time the contract was awarded. One site, Wylfa, continued to generate electricity for a year longer than expected, creating additional revenue for the NDA.
- 2.9 The NDA did not independently assure its assumptions about the work required to decommission 10 out of 12 sites before it put the contract out to tender in 2012. In June 2014 a report by the Major Projects Authority (MPA) noted the risk of errors in these assumptions and the risk of the incumbent contractor leaving 'outstanding activity' on the sites.8 The site-facing team responsible for assuring performance information from the incumbent PBO had been partially diverted to help with the procurement of the new PBO. The NDA does not know whether the cost increase stems from its inaccurate assumptions about the state of the Magnox sites in 2012 when the contract was let, or from under-performance on the sites before it awarded the Magnox contract in 2014.
- 2.10 Despite the increase in estimated costs, the NDA is confident that the contract will still meet HM Treasury's savings target of at least 10%. As of March 2017, it estimated that the contractor's total costs would be £6.0 billion, and that this was £0.9 billion less than it would have been under the old contracts (a 13% saving). We have not audited this.

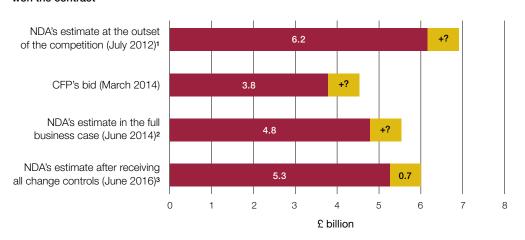
⁸ In January 2016, the Major Projects Authority merged with Infrastructure UK to form the Infrastructure and Projects Authority.

At the outset of the competition, the NDA estimated that continuing with the old contracts would have cost £6.9 billion. This estimate did not include the costs of waste and asbestos, which were later valued at £0.7 billion.

Figure 9

The NDA's estimate of the costs of decommissioning Magnox at different points in time

Estimated decommissioning costs increased significantly after Cavendish Fluor Partnership (CFP) won the contract



- Decommissioning costs
- Costs of waste and asbestos
- +? Unknown costs of waste and asbestos

Notes

- 1 It is against this funding profile that HM Treasury specified its 10% cost saving requirement.
- 2 For the full business case, the NDA added £1.0 billion of contingency to CFP's bid to cover extra scope, taking the total from £3.8 billion to £4.8 billion.
- 3 After receiving all change controls, the NDA's cost estimate increased by £0.3 billion to correct for omissions in CFP's bid, and a further £0.2 billion increase was made for extra scope not covered in the contingency estimate. In addition, by June 2016 the NDA had established that a further £0.7 billion would be needed to clean up waste and asbestos. The NDA's business case had anticipated that extra money would be needed for waste and asbestos, but did not estimate how much, as the volume of waste and asbestos on the sites could not be quantified until work to remove it started.

NDA's decision to terminate the Magnox contract

- 2.11 The NDA received legal advice in November 2014 to the effect that if significant changes to the contract after it was awarded could not be justified under procurement rules, then the contract would be at risk of legal challenge on the grounds of material variation. In June 2016, NDA executives reached an informal agreement with CFP to enable it to conclude consolidation and resolve the dispute over the outstanding change controls. Between May and August 2016, the NDA sought further legal advice on this approach to concluding consolidation. The NDA became aware that this proposed approach to concluding consolidation would make it much harder to defend any legal challenge. The NDA continued to receive legal advice in the autumn of 2016 which progressively indicated that the proposed changes to the contract put it at risk of legal challenge. However, this risk of a challenge on the grounds of material variation to the contract was not included in the NDA's risk register for the consolidation phase of the contract at any point.
- 2.12 On 17 January 2017, the NDA Board received definitive legal advice that the risk of challenge on the grounds of material variation to the contract was significant. This was because there was a risk that the NDA would not be able to demonstrate that the change fell within permitted exceptions under the public contracting regulations to justify the large variation in the cost and scope of the contract from when it was awarded in 2014. The NDA's Board decided to terminate its contract with CFP on 22 March 2017, subject to approval by ministers at the Department and HM Treasury.
- 2.13 On 27 March 2017, the Secretary of State announced the NDA's decision to terminate the contract with the agreement of CFP ("for convenience", as opposed to reasons of underperformance). On 29 September 2017, the NDA with approval from the Secretary of State, served a notice of contract termination to CFP effective from 1 September 2017 allowing for a 24 month notice period, ending on 31 August 2019. As part of the agreement to terminate, the NDA and CFP have agreed the work that CFP will be expected to complete on the sites, what fee CFP will earn up to the end of the contract, and the agreed state in which CFP will leave the sites at the end of the contract.
- 2.14 The NDA is currently considering options for managing the Magnox sites after September 2019. These include competing a new PBO contract, or as with its Sellafield site, bringing the site licence company into the NDA's direct control.

Part Three

Oversight and governance of the contract

The NDA's governance arrangements

- **3.1** The Nuclear Decommissioning Authority's (NDA) Framework Document 2013 sets out the governance and management framework within which the NDA operates. Key responsibilities are set out in **Figure 10** on pages 30 and 31. The Secretary of State for the Department for Business, Energy & Industrial Strategy (the Department) is accountable to Parliament for the NDA's activities and performance. The Department's accounting officer is responsible for ensuring that adequate financial and other management controls applied by the Department to the NDA are appropriate (among other responsibilities). The NDA's accounting officer is responsible for safeguarding public funds for which he has charge, and for ensuring the propriety, regularity, value for money and feasibility in the handling of those funds (Appendix Two).
- 3.2 UK Government Investments (UKGI) is a government company wholly owned by HM Treasury. It was set up to be the government's specialists in corporate governance and corporate finance. The Department devolves oversight of the NDA's governance and performance to UKGI. UKGI is responsible for liaising with the NDA on all aspects of its work and is the main point of day-to-day contact between the government and the NDA. UKGI reports directly to senior officials in the Department, and advises ministers on the NDA's performance and governance. The Department retains responsibility for nuclear policy, but UKGI is required to provide input on the affordability and value-for-money impacts of nuclear policy initiatives in so far as they impact on the NDA.
- **3.3** HM Treasury has formal approval points for the Magnox contract at the start of the procurement process and at contract award. Additional HM Treasury approval has to be sought if the NDA goes beyond the funding agreement and is not able to achieve the target of at least 10% savings. Further approval is required for decisions regarded as "novel, contentious or repercussive", such as the NDA's settlement with Energy Solutions and Bechtel.

Figure 10

Key accountabilities within the NDA's governance

The Secretary of State for Business, Energy & Industrial Strategy

Is accountable to Parliament for the activities and performance of the NDA, including providing information to Parliament about the NDA as required, and seeking Parliamentary approval for expenditure.

The accounting officer for the Department for Business, Energy & Industrial Strategy

The Department's permanent secretary designates the NDA accounting officer and is responsible for ensuring:

- the financial and other management controls applied by the Department to the NDA are appropriate and sufficient to safeguard public funds and for ensuring that the NDA's compliance with those controls is effectively monitored;
- that the NDA complies with central HM Treasury and Cabinet Office expenditure controls;
- that the internal controls applied by the NDA and any subsidiary companies conform to the requirements of regularity, propriety and good financial management and that adequate flow of information is supplied by the NDA to the Department on matters of performance, budgeting, control and risk management; and

The permanent secretary may be required to give evidence to the Committee of Public Accounts or the Departmental select committee on the systems of financial and management control applied to the NDA.

The accounting officer of the NDA

- Day-to-day operations and management of the NDA.
- Ensuring that the NDA as a whole is run on the basis of the standards, in terms of governance, decision-making and financial management as set out in Managing Public Money.
- Responsibilities for accounting to Parliament include: signing the accounts and ensuring they are properly prepared and presented, and giving evidence to the Committee of Public Accounts or Departmental select committee.
- Responsibilities for accounting to the Secretary of State include ensuring effective systems of corporate governance are in place, and ensuring that any significant problems, whether financial or otherwise, are notified to the Secretary of State in a timely fashion.

NDA chair

The chair is accountable to the Secretary of State, and to the Scottish ministers where appropriate, for the NDA's activities and performance in implementing the NDA Strategy and Annual Plan. The chair has a particular responsibility for ensuring:

- that the Board complies with the Energy Act 2004 and has due regard to relevant government policy, including that of the devolved administrations;
- high standards of propriety and regularity, and promoting the efficient and effective use of staff and other resources throughout the NDA; and
- that the NDA's affairs are conducted openly, transparently and with probity.

Figure 10 continued

Key accountabilities within the NDA's governance

NDA Board

The Board is collectively accountable to the Secretary of State, or the Scottish ministers where appropriate, for all aspects of the NDA's activities and performance.

Board members have collective responsibility for ensuring that the NDA complies with any statutory or administrative requirements for the use of public funds and shall demonstrate high standards of corporate governance at all times, including the use of an Audit and Risk Committee to help address key financial and other risks.

UK Government Investments

Primary source of advice to the Secretary of State on the discharge of his responsibilities in respect of the NDA. Tasked with promoting compliance with principles of good governance and advising the Secretary of State for Business, Energy & Industrial Strategy at a strategic level on:

- how well the NDA is achieving its objectives and whether it is delivering value for money;
- appropriate budget and performance targets for the NDA;
- novel, contentious and/or repercussive proposals/projects proposed by the NDA or other parts
 of government, where those proposals might impact on the NDA; and
- other responsibilities, including ensuring effective processes, including risk management, are in place; monitoring and reporting the NDA's performance against agreed targets and against its total financial provision; and that the responsibilities and duties of the Departmental accounting officer are discharged.

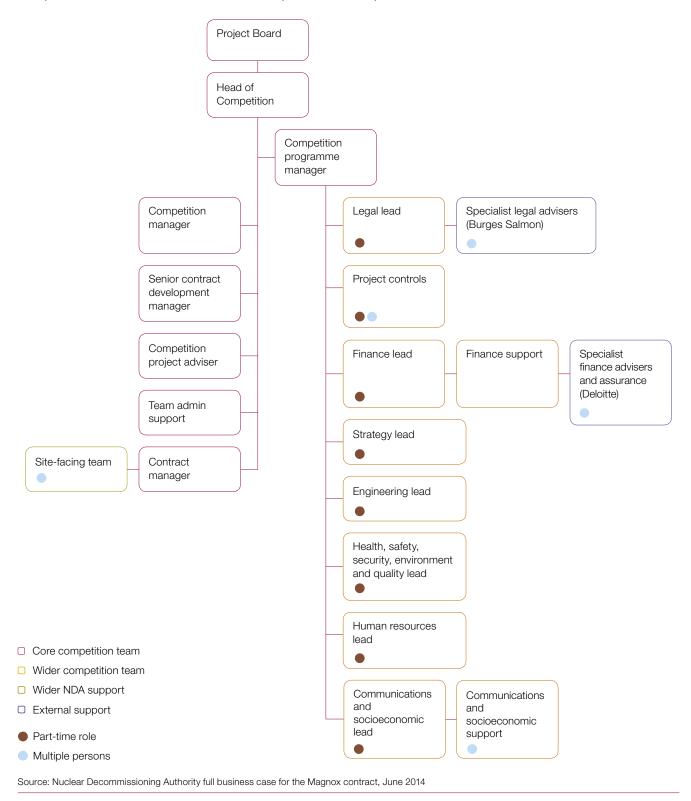
Source: NDA Framework Document 2013

3.4 Scottish ministers are accountable to the Scottish Parliament for the activites and performance of the NDA where Scottish ministers have statutory duties and responsibilities under the Energy Act 2004. In conjunction with the Secretary of State, the responsibilities of Scottish ministers include approving the NDA's strategy and annual plan, and providing information to the Scottish Parliament about the NDA.

Oversight and governance of the Magnox procurement

3.5 HM Treasury and the Department approved the full business case for the Magnox contract in July 2014. This set out the responsibilities within the NDA (**Figure 11** overleaf) and the governance structure for the procurement phase (**Figure 12** on pages 34 and 35).

Figure 11
Responsibilities within the NDA for the procurement phase



- **3.7** The CPB gave the Department, UKGI and HM Treasury a mechanism for overseeing key stages of the procurement phase. This included governance arrangements, the competition schedule, risk management and the competition report, business case and strategies for contracting and procurement. The CPB approved decisions or recommendations before they were approved by the NDA Board.
- 3.8 The CPB and the NDA Board discussed the evaluation criteria in detail during their development in 2012 and 2013, including the use of threshold criteria. These criteria were subsequently approved by the NDA chief executive and commercial director in December 2012 as part of the NDA's invitation to participate in dialogue, and again as part of the NDA's issue of formal invitation to submit final tenders in October 2013. The CPB also approved the tender evaluation report on 21 March 2014, which noted the bidders' final scores and the evaluation methodology. This was subsequently approved by the NDA Board on 26 March 2014. The NDA Board approved the full business case and recommended the contract award to Cavendish Fluor Partnership (CFP) to the Department and HM Treasury in June 2014. The full business case was then reviewed by a departmental investment committee and HM Treasury in June 2014. UKGI also gave the Department advice prior to approving the award of the contract, relaying the recommendations of the NDA Board. Ministers approved the contract award to CFP in July 2014.

Figure 12
Approval points and governance structure for the procurement phase



Approval required

(v) For information only

	Membership	Role
Competition Programme Board	Chaired by NDA strategy director – Competition senior responsible owner (SRO)¹. Other members: NDA CFO; business services director; head of internal audit; head of competition; head of financial planning; Non-executive independent member from Infrastructure UK; and Representatives from Shareholder Executive (2); Scottish Government (2) and HM Treasury.	Strategic oversight of the NDA's programme of competitions across its estate. Approvals of key submissions (as shown above) and reporting to NDA senior management and government stakeholders. Ensuring dissemination of best practice across the programme.
Project Board	Chaired by NDA strategy director – Competition SRO¹. Other members: NDA head of competition; head of contracts; head of Magnox programme; competition programme manager; competition manager; head of financial planning; commercial legal representative; and Non-executive independent member.	Providing project-level ownership of the competition. Approvals of key submissions (as shown above) and reporting to Competition Programme Board. Monitoring and supporting project management functions including risk management.
Notes		

- 1 At the outset, the NDA's commercial director was SRO for the competition. This role was removed from the organisation and responsibility for the competition was transferred to the strategy and technology director in late 2013.
 - The Secretary of State and the chief secretary to HM Treasury provided approval for the competition. Scottish Government ministers endorsed all competition decisions and approvals through membership of the Competition Programme Board.

Source: National Audit Office analysis

Assurance of the procurement process

- 3.9 Procurement rules required the NDA to award the contract to the bidder that provided the most economically advantageous tender against agreed evaluation criteria. The NDA team evaluating the bid consisted of subject matter experts. To strengthen compliance with competition procedures, the NDA designed the evaluation process so that people outside the evaluation team were excluded from any involvement in the evaluation, and the bids were anonymised. When neccessary, access was allowed for NDA's internal audit team and its legal advisers, Burges Salmon, to provide assurance that processes were being followed correctly.
- **3.10** NDA executives were confident that the procurement was carried out robustly and that the outcome was correct. The CPB and the NDA Board and executives received assurance from internal and external reviews, including:
- two NDA internal audit reports reviewed governance arrangements and looked at whether evaluators had complied with the evaluation process. Reviewers checked a sample of 5% to 10% of the process to assure compliance. Both reports awarded a 'green' rating;
- four MPA reports, which rated the competition as 'green' and 'amber-green'. These 'strategic assurance reviews' each took place over a period of three days, and aimed to assess whether the project was on course to deliver its objectives. Each review had its own terms of reference; they included assessments of project plans, controls, delivery approach, risk management and resourcing. Their scope did not include examining whether evaluation guidelines were followed appropriately or in accordance with public procurement guidelines; and
- the NDA hired consultants to give advice on specific aspects of the design of its evaluation scheme. In autumn 2013 the consultants simulated the NDA's process for adding up the total score of each bid to check whether the process had been clearly defined. They did not give advice on what the evaluation criteria should be, or check that they had been applied correctly.

- **3.11** These reviews had limited scope and ability to detect issues later identified in the High Court judgment. We note, however, that the NDA did not commission any further assurance reviews on evaluation compliance with procurement regulations after it became aware of the potential for legal proceedings or before its decision to defend claims in court.
- **3.12** The NDA requested and received two letters of comfort from its legal advisers, Burges Salmon, in September 2013 and March 2014. In the first, Burges Salmon noted that, as of the date of the letter, the NDA had complied with its obligations under public contracting regulations. In the second, Burges Salmon noted that its involvement included:
- assessing specific commercial sections of the bids against the relevant evaluation crtieria;
- providing ad hoc advice to the competition team on issues of compliance; and
- periodic reviews during the evaluation period of the scoring and rationale to help evaluators appropriately align their scores and comments against the evaluation requirements. Burges Salmon further noted that at the time of writing it had completed a review of all scores and comments and provided feedback to the NDA evaluators.

Burges Salmon confirmed that, subject to the NDA's evaluators' reviewing and acting on their advice, they were "not aware of any reason" for the NDA not to issue the preferred bidder report and appoint CFP.

Oversight and governance of the consolidation process

- **3.13** The NDA's full business case for the Magnox contract implied that consolidation was a significant exercise and could require up to £1 billion of changes to the contract baseline. However, the business case, approved by HM Treasury and the Department, did not include governance arrangements for the consolidation phase. **Figure 13** on pages 40 and 41 summarises our understanding of the de facto governance arrangements of the NDA's consolidation process.
- **3.14** HM Treasury approved the contract award and share transfer to CFP in July 2014. This approval was subject to the NDA establishing an appropriate approval process for change controls through a Change Control Board (CCB) to supplement its existing change control review and approval processes. An MPA review in June 2014 also highlighted the need for adequate governance of change controls. The CCB's terms of reference were not approved until August 2015, a month before the contractual deadline for consolidation. The CCB did not meet until eight months into what was meant to be a 12-month process. During this time, the CPB received no updates on the progress of the consolidation process.¹⁰

Responsibilities in the NDA

- **3.15** Under the NDA's operational arrangements, the single point of accountability for the delivery of the Magnox contract over the 14 years was the chief financial officer (CFO). However, responsibility for finalising the contract, including the consolidation phase, rested with the SRO, the NDA's director for strategy and technology. This was in line with a recommendation made by the MPA in a June 2014 assurance review. NDA executives told us that the consolidation process effectively had two SROs with overlapping responsibilities, which was unhelpful.
- **3.16** There were several changes to the team managing the consolidation process as it progressed. Initially, the NDA's site-facing team was tasked with challenging CFP's requested change controls while also maintaining its day-to-day contract management responsibilities. A review commissioned by the NDA's assurance team in July 2016 found that the site-facing team was struggling to perform both duties effectively. The NDA responded by putting in place a new consolidation closure team in August 2016. The NDA's head of programme for the consolidation process (responsible for day-to-day management of CFP) changed once, and the NDA's lead on consolidation changed twice during the consolidation process.

¹⁰ In August 2015, the CPB's terms of reference were changed, shifting its responsibilities from an approvals body to one charged with oversight and providing scrutiny and challenge.

Assurance of the consolidation process

- **3.17** The NDA Board was given only the executive summary of the full business case for the Magnox competition. NDA Board members told us they were not fully apprised of the risks concerning consolidation and therefore did not fully challenge them.
- **3.18** The NDA's assurance director commissioned three reviews of the consolidation process (**Figure 14** on page 42). The first of these, in December 2015, flagged the risk that CFP would miss the revised deadline. These reviews were shared with the programme's SRO and the CFO, but the Board was only informed of the findings of the third review, in June 2016.

Potential overpayment

3.19 The NDA told us it believes its assumptions for the competition may have been incorrect because it did not have comprehensive information about the state of the sites. In March 2017, the NDA's internal audit reported "a risk that the NDA may have paid for work which has been incorrectly reported as completed by the previous contractor". Since the interim internal audit report was published, the NDA has not undertaken any work to establish whether it may have paid for work that was not performed.

Escalation of risk

3.20 The NDA Board was made aware of challenges to consolidation as early as March 2015, when a report from the chief executive officer noted that the NDA's estimate of the cost in the full business case "may prove to be too small". The Board was first informed in June 2015 of the risk that CFP would miss its contractual deadline of 1 September 2015. Board minutes thereafter continued to note rising costs and the failure to meet the first, then the revised, deadline for consolidation. Non-executive Board members told us that NDA executives had repeatedly informed them that consolidation was nearing completion, that consolidation was not impacting on site performance, and that the cost increase was still within the parameters of the business case. On 30 June 2016, the Board commissioned the NDA's internal audit team to conduct a review of the consolidation process.

Revised business case (forthcoming²) 3 3 7 7 7 7 Consolidation closure report² 3 Change controls² 7 (v) Papers submitted for information and advisory input only Competition Programme Board Governance of the consolidation process Department for Business, Energy & Industrial Strategy//UK Government Investments Site-facing team/consolidation team Change Control Board Approval required HM Treasury NDA Board Ministers³

Figure 13

	Membership	Role	Changes to role/remit over time
Competition Programme Board	Chaired by NDA strategy and technology director – competition senior responsible owner (SRO). Other members: NDA GFO; business services director; head of internal audit; head of competition; head of internal planning; Non-executive independent member from Infrastructure UK; and Representatives from ShEx (2); Scottish Government (2) and HM Treasury.	Strategic oversight of NDA's programme of competitive procurements. Ensuring good contract management and benefits realisation post-contract award.	Terms of reference reviewed in August 2015 resulting in a shift of its role from a decision-making body to one providing advice and guidance.
Change Control Board	Chaired by strategy director – competition SRO. Other members: NDA CFO; assurance director and business services director.	Strategic oversight of progress on Magnox consolidation. Advise the SRO to approve, reject or instruct site-facing team to review any change controls that affect target cost, client specification or contract.	First met in May 2015; terms of reference not approved until August 2015.
Site-facing team/ consolidation closure group	The site-facing team comprises – 1 general manager, 5 programme managers, 2 programme controls managers, 2 finance managers, 4 commercial managers, 1 communications manager and the equivalent of 1 full-time member of staff covering strategy; environment, health, safety and security; and human resources. The consolidation closure group comprises: 1 head of commercial, 1 lead project control manager, 1 finance project accountant and 1 programme manager.	Process, consider and make recommendations on change controls to the Change Control Board.	Originally, responsibility for considering change controls was given to the site-facing team, which was additionally responsible for business-as-usual contract management. In August 2016, the site-facing team was relieved of responsibility for change controls. A new consolidation closure group was set up to consider these, supported by the site-facing team.

Notes

- In May 2015 the Chancellor of the Exchequer announced the creation of UKGI to replace the Shareholder Executive. In July 2016 the Department for Business, Energy & Industrial Strategy took on the responsibilities of the former Department of Energy & Climate Change, including sponsorship of the NDA.
- The NDA will submit a revised business case for the contract once it agrees the terms of termination with CFP. It would have also been required to submit a consolidation closure report, if consolidation had been concluded.
- Approval or endorsement is required from ministers at the Department and HM Treasury. Scottish Government ministers are informed through the CPB.

Source: National Audit Office analysis

Figure 14 NDA assurance reviews into consolidation

Date	Review team	Summary of key points/recommendations
December 2015	External assurance advisers	The review found no evidence that consolidation could be completed by March 2016, resulting in a high risk of future contract compliance contravention.
		It recommended that a contract remediation notice should be served and expedient contractual settlement was required.
April 2016	NDA staff and external assurance advisers	The review noted that the consolidation deadline of 31 March 2016 had been missed. It recommended:
		 that the NDA finalise the contract and lifetime plan as soon as possible;
		 that the NDA should consider formally issuing a defective performance notice to CFP and a contract remediation notice;
		 that no further extensions of consolidation should be granted and that change controls should not be adopted outside of existing limited contractual provision.
July 2016	External assurance advisers	The review recommended that contract compliance should be subject to an independent legal opinion.
		The review also stated that the informal agreement on concluding consolidation that the NDA had made with CFP (but not finalised) was likely to result in a total cost that satisfied the 10% cost savings target set by HM Treasury.

Source: National Audit Office analysis of Nuclear Decomissioning Authority assurance reviews

3.21 In seeking ministerial approval for the award of the Magnox contract in 2014, HM Treasury officials described the risk of significant changes to the cost of the Magnox contract as small. HM Treasury focused on whether the NDA would achieve the cost savings target, but could not determine whether it had until consolidation was complete. Officials did not therefore escalate any concerns to HM Treasury ministers about the delay in the consolidation process. HM Treasury told us that its oversight of the process was maintained through the CPB, and informal briefings from NDA executives, UKGI and the IPA.

3.22 UKGI, acting on behalf of the Department, maintained oversight of the consolidation process through governance meetings with the NDA, audit committee meetings and quarterly shareholder meetings. The NDA submitted monthly and quarterly governance reports to UKGI as part of a wider briefing on the NDA estate. These reports consistently highlighted the delays in consolidation. They also noted the potential for increase in the costs relative to CFP's bid. HM Treasury and UKGI told us they were concerned about the delays in consolidation, but relied on the NDA's assurances that a resolution would be achieved and of the importance of ensuring that the quality of their review of change controls was not compromised. UKGI reports noted that the NDA believed that, despite cost increases, it still expected to meet the 10% savings target set by HM Treasury. UKGI reported progress to the Department through a monthly dashboard and risk register, supplemented at times with other briefings. UKGI told us that it was not aware of the full volume of changes to the cost of the contract until the summer of 2016. UKGI briefed ministers for the first time on the potential changes to the cost of the contract in August 2016.

3.23 On 12 January 2017, senior officials in the Department, acting with advice from UKGI, decided to escalate to ministers their concerns regarding consolidation and the risk of material variation to the contract. Between March and April 2017, UKGI made three further submissions regarding the risk of material variation and on termination of the Magnox contract.

Decision to terminate the contract

3.24 The decision to terminate the Magnox contract ultimately rests with the NDA Board. As with the decision to settle the claims, the NDA's decision to terminate the contract was approved by the Department's accounting officer and Secretary of State, as well as HM Treasury. To support the NDA's decisions on issues pertaining to the litigation and the risk of material variation, a cross-government group chaired by the chief executive of the civil service met repeatedly to discuss the NDA's options for settling and terminating the Magnox contract, and what to replace it with.

- **3.25** Events surrounding the Magnox contract took place against a backdrop of recent failures in the government's management of major contracts. This includes the Ministry of Justice's announcement in 2013 that it had found significant overbilling in its electronic monitoring contracts dating back to 2005. These failures led to a cross-government review of the management of major contracts. The government's chief procurement officer wrote to government departments in December 2013 with the recommendations from the review, which included expanding the scope of the commercial director role in government departments. In early 2014, the NDA's chief executive removed the commercial director role from the organisation.
- **3.26** Following the decision to terminate the contract, the NDA has asked Government Commercial Function (GCF), part of the Cabinet Office, to help it improve its commercial capability. GCF is working with the NDA to produce a 'commercial blueprint', a workforce plan for commercial staff and training for senior commercial specialists in the GCF's development centre. The NDA has also recently decided to reinstate the role of commercial director within the organisation.

Part Four

Cost to the taxpayer

4.1 We estimate that the Magnox contract cost the taxpayer upwards of £122 million. In this section we set out the costs to the taxpayer based on published information on the terms of the Nuclear Decommissioning Authority's (NDA's) settlement with Energy Solutions and Bechtel, a review of the NDA's invoices, and its estimates of staff time (**Figure 15**).

Figure 15

Costs incurred by the NDA associated with the Magnox contract

	£000
Total fees paid to third parties	13,786
Costs of NDA staff time	10,835
Costs of settlements with Energy Solutions and Bechtel	97,346
Total	121,967

Note

1 The total excludes costs of senior staff time in central government departments, UK Government Investments and the Infrastructure and Projects Authority. It also excludes the costs of the independent inquiry.

Source: National Audit Office analysis

4.2 A review of the NDA's invoices shows it spent $\mathfrak{L}3.2$ million on fees and external charges during the competition process (**Figure 16**). Of this amount, $\mathfrak{L}3.0$ million (94%) was paid to solicitors who advised on the design and running of the competition. The rest of the fees were for commercial advice services and procuring specialist software. The NDA has estimated that, during the competition, its total in-house staff costs were $\mathfrak{L}5.7$ million (**Figure 17**).

Figure 16		
Fees paid by NDA to third parties		
	£000	
Legal advice on preparing and running the competition	3,019	
Commercial advice on the competition	128	
AWARD software	67	
Total fees for competition	3,214	
Litigation for Energy Solutions claim	8,173	
Litigation for Bechtel claim	220	
General management of litigation	157	
Total fees for litigation	8,550	
Legal advice on reaching settlement	1,154	
Total fees for settlement	1,154	
Financial advice on consolidation	160	
Assurance of consolidation	154	
Total fees for consolidation	314	
Legal advice on termination	500	
Other advice on termination	55	
Total fees for termination	555	
Total fees paid to third parties	13,786	
Note		
 Figures may not sum due to rounding. Source: Nuclear Decommissioning Authority invoices 		
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Defence of legal claims and settlement

- **4.3** The NDA spent £8.6 million on legal advice while it defended the legal claims issued by Energy Solutions and Bechtel (Figure 16). Almost all of this expenditure related to the Energy Solutions claims. It spent a further £1.2 million on assistance from legal advisers in reaching the terms of the settlement with both parties. The NDA estimates that, during litigation, its total in-house staff cost was £1.7 million (Figure 17).
- **4.4** In March 2017, the Secretary of State announced that the NDA had agreed settlements with Energy Solutions and Bechtel (**Figure 18**).

Figure 17

Costs of NDA staff time

	£000
Competition	5,748
Litigation	1,720
Consolidation and termination	3,366
Total NDA staff time	10,835

Notes

- 1 These costs are estimates produced by the NDA in July 2017. NDA staff are not required to submit timesheets, and therefore staff costs have been approximated by listing all the individuals thought to have been involved, estimating the time they spent, and multiplying this by a cost per unit time that includes salary, benefits and national insurance contributions.
- 2 Travel costs of NDA staff have not been included. The NDA typically spends 5% of payroll costs on travel.
- 3 Figures may not sum due to rounding.

Source: Nuclear Decommissioning Authority estimates of in-house staff costs

Figure 18

Settlements with Energy Solutions and Bechtel

	£000
Settlement with Energy Solutions	76,500
Legal costs for Energy Solutions	8,500
Settlement with Bechtel ¹	11,884
Legal costs for Bechtel	463
Total cost of settlements	97,346

Note

- 1 The NDA agreed a \$14.8 million settlement with Bechtel; this has been converted to pounds sterling.
- 2 Figures may not sum due to rounding.

Sources: Hansard HC, 27 March 2017, vol. 624, col 25, and NDA Annual Report and Accounts, 2016-17

Consolidation and contract termination

4.5 The NDA estimates that it spent £0.3 million on external advice during the consolidation process, and will spend a further £0.5 million on advice on terminating the contract. It estimates that the cost of NDA staff time spent on consolidation and termination had reached £3.4 million by July 2017.

Costs of nuclear decommissioning services

- 4.6 Cavendish Fluor Partnership (CFP) has progressed decommissioning work on the Magnox sites since it acquired the shares of the site licence company in September 2014. Between September 2014 and April 2017 the NDA has paid CFP £1.6 billion in costs to decommission the sites. During the attempt to consolidate the contract, CFP and the NDA failed to agree the fee that CFP should earn given the expanded scope of work. The NDA originally expected the contractor's fee to amount to around 5% of the cost of decommissioning, depending on its performance. As of 1 April 2017, CFP had been paid £55 million in fees on a provisional basis, subject to a potential revision as part of the NDA's termination agreement with CFP.
- 4.7 According to NDA figures, which we have not audited, expenditure under the current contract with CFP up until 1 April 2017 has been £255 million lower than what the NDA previously expected the old contracts might cost. 12 Although this is indicative of the contract creating savings, some of the £255 million difference may have also come from CFP being slightly behind schedule, and lower-than-expected inflation.

Appendix One

Our audit approach

Scope

- 1 This report sets out the facts surrounding the Nuclear Decommissioning Authority's (NDA) Magnox contract. It covers:
- the procurement process, contract award, litigation and settlement;
- the consolidation process and contract termination;
- the oversight and assurance system supporting the contract; and
- the total cost to the taxpayer.
- 2 We carried out our fieldwork between May and July 2017. Our report did not examine issues pertaining to contract design, compliance with procurement regulations, or the reasons behind the High Court judgment of July 2016.

Methods

- 3 We interviewed relevant individuals from the NDA, including the current chair and chief executive officer (CEO), and the chair and CEO who were in post throughout most of the events in our report. We also interviewed NDA executive directors involved in the contract.
- 4 We also interviewed relevant individuals from the Department for Business, Energy & Industrial Strategy (the Department), HM Treasury, UK Government Investments (UKGI) and the Infrastructure and Projects Authority (IPA).

- 5 We reviewed relevant documents, including:
- minutes and papers from NDA Board meetings, minutes of the Competition Programme Board and minutes of the Change Control Board;
- papers from the monthly and quarterly governance meetings between the NDA, UKGI, the Department and HM Treasury;
- ministerial submissions by UKGI and HM Treasury;
- minutes of the cross-government meetings on Magnox chaired by the chief executive of the civil service;
- the NDA's business cases for the competition, and supporting documents including the competition procurement strategy, contracting strategy, tender evaluation report and risk registers;
- assurance reviews conducted by the Office for Government Commerce (later the Infrastructure and Projects Authority), NDA internal audit and the NDA's external assurance partners;
- letters of comfort submitted by the NDA's legal advisers, Burges Salmon;
- correspondence between the NDA and bidders; and
- the courts' judgments on the Energy Solutions case.
- **6** We **reviewed cost data** provided to us by the NDA. We have not audited these figures.

Appendix Two

The NDA's Framework Document 2013

- 1 The Framework Document 2013 sets out the governance and management framework within which the Nuclear Decommissioning Authority (NDA) operates. The document was drawn up by the Department of Energy & Climate Change (DECC) and the Scottish Government in consultation with the NDA. It has not been updated since 2013, and therefore does not reflect key changes to the stakeholders mentioned within. This includes:
- In July 2016, the Department for Business, Energy & Industrial Strategy (the Department) took on the responsibilities of DECC after it was abolished in machinery-of-government changes. This includes the sponsorship of the NDA.
- UK Government Investments (UKGI) began operating on 1 April 2016 as a government company wholly owned by HM Treasury. It brings together the functions of the Shareholder Executive (ShEx) and UK Financial Investments under a single company.

The Department and UKGI fulfil the roles of DECC and ShEx respectively within the Framework Document 2013.

- 2 Part Two of the Framework Document sets out ministerial accountability for DECC (now the Department). It states that the Secretary of State is accountable to Parliament for the activities and performance of the NDA. Responsibilities in this regard include:
- setting the performance framework within which the NDA will operate including approving the NDA's strategy and annual plan;
- appointing the chair of the NDA and other non-executive members and approving the appointment of the CEO by the non-executive members, after consultation with Scottish ministers for each appointment;
- setting the pay and incentive structure for the chair and other non-executive members;
- issuing directions, and issuing and removing designations and making transfer schemes in accordance with the provisions of the Energy Act 2004;
- determining the terms on which the NDA will have access to Grant in Aid in order to discharge its duties and responsibilities, maintenance of appropriate funding mechanisms;

- providing information to Parliament about the NDA as required, and seeking Parliamentary approval for expenditure;
- issuing Accounts Directions on the basis for preparation of the NDA's annual accounts; and
- laying the NDA's Annual Report and Accounts before Parliament.
- **3** Part Two of the Framework Document sets out the responsibilities and accountabilities of the Department for Business, Energy & Industrial Strategy's accounting officer. It notes that accounting officer's responsibilities are set out in more detail in *Managing Public Money*. The Department's accounting officer:
- designates the NDA accounting officer (who may also be the NDA chief executive) and ensures that he/she is suitably trained and fully aware of his/her responsibilities;
- is responsible for ensuring that the financial and other management controls
 applied by the Department to the NDA are appropriate and sufficient to safeguard
 public funds and for ensuring that the NDA's compliance with those controls is
 monitored effectively;
- ensures that the NDA complies with central HM Treasury and Cabinet Office expenditure controls, as outlined in *Managing Public Money* and Cabinet Office guidance;
- must be satisfied that the internal controls applied by the NDA, and any subsidiary companies, conform to the requirements of regularity;
- is responsible for propriety and good financial management and for ensuring that an adequate flow of information is supplied by the NDA to the Department on matters of performance, budgeting, control and risk management;
- is accountable to Parliament for any Grant in Aid paid to the NDA and for ensuring that monies issued to the NDA are used for the purposes intended by Parliament; and
- may be required to give evidence to the Committee of Public Accounts, or the Departmental select committee on the systems of financial and management control applied to the NDA.

- **4** Part Two of the Framework Document sets out the NDA accounting officer's responsibilities for accounting to Parliament. They include:
- signing the accounts and ensuring that proper records are kept relating to the accounts and that the accounts are properly prepared and presented in accordance with any directions issued by the Secretary of State;
- signing a statement of accounting officer's responsibilities for inclusion in the Annual Report and Accounts; signing a governance statement regarding the system of internal control for inclusion in the Annual Report and Accounts and giving evidence – supported as necessary by other Board members – on the use and stewardship of public funds by the NDA if summoned before the Committee of Public Accounts or the Departmental select committee.
- 5 The NDA accounting officer is responsible to the Secretary of State for:
- ensuring that management information systems are in place and that any information required or requested by the Department is provided on a timely basis;
- ensuring that effective systems of corporate governance are in place including adequate systems for internal and financial control and effective measures against fraud and theft; and
- ensuring that any significant problems, whether financial or otherwise, are notified to the Secretary of State in a timely fashion.
- 6 The NDA accounting officer is responsible to the NDA Board for:
- advising on the discharge of its responsibilities as set out in the Framework
 Document, the Energy Act 2004, any directions made under section 3 of the
 Energy Act 2004, and any other relevant instructions and guidance that may be
 issued by HM Treasury from time to time;
- advising on the NDA's performance compared with its aims and objectives as set out in its strategy and annual plans;
- establishing the NDA's corporate and business plans in light of the NDA's statutory duties;
- ensuring that value for money financial considerations are taken fully into account by the Board at all stages in reaching and executing its decisions, and that decisions are taken on the basis of appropriate financial appraisal; and
- the NDA accounting officer may also take action as set out in Managing Public Money
 if the Board, or chair, is contemplating a course of action involving a transaction which
 the accounting officer considers would infringe the requirements of propriety or
 regularity, or does not represent prudent or economical administration, efficiency
 or effectiveness, is of questionable feasibility, or is unethical.

- 7 The chair of the NDA is appointed by the Secretary of State in conjunction with the Scottish ministers and in line with the Code of Practice issued by the Office of the Commissioner for Public Appointments. The appointment will be for a fixed term, with the possibility of extension subject to review of performance. The chair is accountable to the Secretary of State, and to the Scottish ministers where appropriate, for the NDA's activities and performance in implementing the NDA strategy and annual plan. The chair has a particular responsibility for providing effective leadership on the following matters:
- formulating the Board's strategy for discharging its statutory functions and duties, and that in reaching decisions the Board: complies with the Energy Act 2004; has due regard to relevant government policy, guidance and instructions including that of the devolved administrations; and takes proper account of inputs from stakeholders;
- reviewing the balance of skills and experience on the Board against the changing emphasis of the NDA's work in discharging its statutory duties and, as necessary, recommending changes to the Secretary of State who will consult the Scottish ministers;
- providing the Secretary of State and the Scottish ministers with an annual assessment of the performance and effectiveness of the Board and of individual Board members;
- ensuring high standards of propriety, and regularity, and promoting the efficient and effective use of staff and other resources throughout the NDA; and
- ensuring that the NDA's affairs are conducted openly, transparently and with probity, and representing the NDA to the public and stakeholders.
- The chair shall ensure that all members of the Board, when taking up office, are fully briefed on the terms of their appointment, duties and responsibilities. Where necessary, the chair will ensure that any member of the Board will receive training on financial management and reporting. The chair shall also ensure that a code of practice for board members is in place based on the Cabinet Office publication *Code of Conduct for Board Members of Public Bodies*. The Code shall commit the chair and other Board members to the seven Nolan principles of public life, and shall include a requirement for a comprehensive and publicly available register of Board members' interests. Communications between the Board and the Secretary of State and the Scottish ministers shall normally be through the chair.

- **9** Part Three of the Framework Document sets out governance and structure. Key points are:
- DECC (later the Department for Business, Energy & Industrial Strategy): As the government department with the lead sponsorship functions for the NDA, DECC is responsible for all financial aspects of the NDA's governance. However, in accordance with the Energy Act 2004, and as the NDA operates along similar lines as a cross-border public authority, it is also accountable to Scottish ministers and the Scottish Parliament for the activities and performance of the NDA in, or as regards, Scotland. Therefore the Scottish Government also has a role in the governance of the NDA and will work closely with DECC to ensure that the expectations of government (both the UK government and the Scottish Government) are met. NDA should comply with the principles of good corporate governance.
- The ShEx corporate governance team (later UKGI) is responsible for liaising with the NDA on all aspects of its work and is the main point of day-to-day contact between the government and the NDA. This dedicated team is the primary source of advice to the Secretary of State on the discharge of his responsibilities in respect of the NDA. In exercising its responsibilities to the NDA, ShEx will provide advice to the DECC Secretary of State and to the DECC accounting officer, in consultation with DECC policy officials. Responsibility for policy is with DECC although ShEx will be required to provide input on the affordability and value-for-money impacts of DECC's nuclear policy initiatives in so far as they impact on the NDA. ShEx also supports the Departmental accounting officer on his or her responsibilities toward the NDA.
- 10 The Framework Document sets out ShEx's (later UKGI) responsibilities, to include advising the Secretary of State and Scottish ministers at a strategic level on:
- how well the NDA is achieving its objectives and whether it is delivering value for money;
- appropriate budget and performance targets for the NDA;
- novel, contentious and/or repercussive proposals/projects proposed by the NDA or other parts of government, where those proposals might impact on the NDA and public appointments matters;
- ensuring effective processes, including risk management, are in place and are used by the NDA in producing its strategy and annual plan;
- monitoring and reporting the NDA's performance against agreed targets and against its total financial provision;
- ensuring the responsibilities and duties of the Departmental accounting officer are discharged; and
- advising the NDA on matters arising from the Energy Act 2004, and ensuring proper lines of communication between the NDA and the Scottish Government.

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