



# Nuclear Decommissioning Authority **Business Plan**

1 April 2022 to 31 March 2025





# Nuclear Decommissioning Authority

## Business Plan

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Financial year beginning April 2022 to  
financial year ending March 2025

Business Plan presented to Parliament pursuant  
to Schedule 3 of the Energy Act 2004.

Business Plan laid before Scottish Parliament  
by the Scottish Ministers pursuant to Schedule 3  
of the Energy Act 2004.

March 2022

SG/2022/39

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# Response to the consultation

## Introduction

In December 2021 the NDA published its draft Business Plan 2022-2025.

Our consultation on the Plan ran for eight weeks, from 6 December 2021 to 31 January 2022. We are conscious that the timing of our annual Business Plan consultation may cause difficulties for some stakeholders wanting to respond, but we are constrained to the current planned period due to the timing of seeking consultation responses and following the required approvals process. We will continue to review and improve the consultation process within the current constraints.

Consultees were able to respond by email or post. The consultation ran in accordance with the criteria set out in the Cabinet Office's Consultation principles guidelines: [www.gov.uk/government/publications/consultation-principles-guidance](http://www.gov.uk/government/publications/consultation-principles-guidance)

## Our findings

We received 22 formal responses from a range of individuals, local authorities, stakeholder groups and the supply chain. A summary of the general points raised are covered below.

We have considered the feedback and made appropriate changes to amend the draft document.

Where stakeholders have requested or have asked for a level of information that is not appropriate for this document we will follow up with further engagement.

If respondents feel that their feedback has not been adequately addressed, please email: [businessplanning@nda.gov.uk](mailto:businessplanning@nda.gov.uk)

## Activities and requests for more information on targets

A number of respondents asked for more detailed targets to be included in the Plan. The Plan's purpose is to provide a summary of activities and expected progress for our 17 nuclear sites over the next three years, in line with the funding agreed with HM Treasury and the Department for Business, Energy and Industrial Strategy (BEIS). All the NDA group companies engage in their own operational planning

which includes detailed targets, budgets, and key deliverables. These individual plans are subject to appropriate governance within the operating companies and are consolidated at a group level for reporting and measuring performance.

We continue to improve how we tell our story and how our mission flows into delivery on the ground. Pages 24-27 are where we have outlined our four strategic themes, which can be broken down into 47 outcomes. Our critical enablers' page also describes the importance of these activities to our mission. We also commit to publish an annual Mission Progress Report which demonstrates delivery of our strategic themes and outcomes as explained in our Strategy.

## Engaging with our stakeholders

During the consultation we received feedback that some stakeholders would like to be engaged earlier to take advantage of any opportunities for site level activities to align with local strategies. Some respondents also suggested we should enhance our use of social and digital media and make better use of virtual events and meetings.

We welcome this feedback and are committed to further improving the flexibility of our interactions to encourage more diverse discussions. Engaging openly and transparently with all our stakeholders is crucial to building the support, confidence and trust we need to deliver our mission.

## Funding

A number of respondents asked for a more detailed split in expenditure. The intent of including expenditure figures is to outline planned allocations of available funding. The NDA operates a portfolio funding approach across the group and retains flexibility in final allocations through the year. This allows us to focus on our highest hazards and high risk areas, while maximising value for money. This means that it is not always appropriate to provide a more detailed split of the expenditure.

# Response to the consultation contd

## **Sustainability/Net Zero**

There was interest in this area from a number of respondents. We have a legal, moral, and ethical responsibility to deliver our mission sustainably, with care for our people, communities, and the environment. We have a renewed focus on sustainability and social value and are committed to supporting the UK and Welsh government target of carbon net zero by 2050 and the target of 2045 set by Scottish Government. More information on our current approach to sustainability can be found on page 32 and also in section 8.2 of our Strategy.

## **Socio economics**

There was continued interest in the NDA's work in this area and how it allocated budget for these activities. In 2020 we revised our approach to socio-economics in our Local Social and Economic Impact Strategy update and the revised guidance on how to apply for grants is available on our website. We have also strengthened our reference to socio-economics with a case study on St Ola Pier, Scrabster Harbour on page 31.

We have a responsibility to support the sustainability of our sites' communities up to and after their closure. This means working in partnership with local authorities and organisations to better understand local needs.

## **Accelerated decommissioning of Magnox sites**

Following a review of the Magnox reactor decommissioning strategy (strategic outcome 42), the NDA has endorsed a site-specific approach to Magnox reactor decommissioning which will involve a mix of decommissioning strategies. The intention is that the site-specific strategies will result in a rolling programme of activity as the Magnox fleet is decommissioned.

The overall strategy and site-specific details will be published when appropriate governance and stakeholder engagement is complete.

## **Transfer of AGR sites**

A number of respondents were interested in the UK Government's decision to entrust the

NDA group with a new, nationally important UK decommissioning programme. Once defueling and fuel free verification are complete, the ownership of seven EDF Energy advanced gas-cooled reactor (AGR) sites will transfer to the NDA over the next decade for future decommissioning.

We recognise the importance of engaging with our stakeholders during the process to take ownership of these sites, in particular the site stakeholder groups and local authorities in host communities.

## **Other minor changes in the Plan**

An update on the BEIS Departmental Review and Magnox Inquiry can be found in our CEO's foreword.

A photograph of a nuclear power plant with various structures, pipes, and a tall chimney stack against a clear sky. A teal rectangular box is overlaid on the left side of the image, containing the word 'Contents' in white.

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## Preface

We're charged with the mission to clean up the UK's earliest nuclear sites safely, securely and cost-effectively. Doing this with care for our people, communities and the environment is at the heart of our work. We're committed to overcoming the challenges of nuclear clean-up and decommissioning, leaving our 17 sites safe and ready for their next use.

Engaging openly and transparently on our work is important to us. This Business Plan is one of several publications which we create and consult on every year. In line with Energy Act requirements, it sets out the activities that will take place over the next three years to advance our important clean-up and decommissioning work and operate our facilities safely and securely. It shows anticipated funding for each of the businesses for 2022/23 and outline total funding for the following two years. We show how the activities are helping to deliver our mission by aligning them to the 47 Strategic Outcomes identified in our Strategy and Mission Progress Report. We also include key work

across our range of critical enablers vital to the delivery of the mission.

This document provides the high-level overview of business activity. All the NDA group companies engage in their own operational planning which includes detailed targets, budgets, and key deliverables. These individual plans are subject to appropriate governance within the operating companies and are consolidated at a group level for reporting and measuring performance. Performance against the top-level group priorities and targets is summarised each year in a Mid-Year Performance Report and at the end of the year in our Annual Report and Accounts.



# How we communicate our strategy and report progress

## ENGAGE WITH OUR STAKEHOLDERS



### NDA Strategy

Latest edition: March 2021

Twelve week public consultation every five years. Describes how we will deliver our mission, ensuring that the UK's nuclear legacy sites are decommissioned and cleaned up safely, securely, cost-effectively and in ways that protect people and the environment.

Energy Act requirement. Covers 100+ years. Published every five years.

## REPORT PROGRESS



### Mission Progress Report

Latest edition: November 2021

Provides our stakeholders with a clear and concise story of NDA mission progress since 2005, that demonstrates delivery of our strategic themes and outcomes as explained in our Strategy.

Covers 100+ years. Published every year.



### NDA Business Plan

Latest edition: March 2021

Eight week public consultation every year. Describes key activities across the group over the next three years that align to our strategic outcomes and details the funding available for the next year.

Energy Act requirement. Covers three years (the first year in more detail). Published every year.



### NDA Mid-Year Performance Report

Latest edition: February 2021

Provides a progress update against Business Plan activities and incorporates the NDA group targets.

Published every year.



### NDA Annual Report and Accounts

Latest edition: July 2021

Describes achievements and spending. Reports against Business Plan activities and contains an overall progress update against our mission.

Published every year.

# A message from our Chief Executive David Peattie

Welcome to the NDA's Business Plan, setting out our plans to 2025.

## Simplification

The last three years have seen us taking significant steps to simplify the way the NDA and our companies are organised, so we can maximise the way in which we clean up and decommission our legacy nuclear estate. Our new operating model is built upon a subsidiary approach, bringing together the organisations responsible for delivering the NDA mission into one group. Moving away from the previous contractual approach of the parent body organisation model is already helping us to transform the way we're working.

The principle is to simplify the way we operate and move to fewer legal entities, focusing our efforts on performance and value for money. With the last two site licence companies, Dounreay and LLWR, becoming NDA group subsidiaries last year, the intention is now to bring some of our organisations together to harness the benefits of their scale and synergies. Earlier this year following all the necessary approvals, LLWR joined with RWM to become Nuclear Waste Services (NWS) and Dounreay will join with Magnox within the next 18 months. The subsidiaries will sit alongside the NDA, Sellafield and Nuclear Transport Solutions (NTS) and make up a simplified, yet stronger NDA group. NTS, launched in April 2021, saw us bringing together our shipping expertise, held by International Nuclear Services, with Direct Rail Services' rail operations.

These structural changes will see the NDA's operating companies working in four pillars: Sellafield, Magnox with Dounreay, Nuclear Transport Solutions and Nuclear Waste Services.

Our functions will work across the organisations in a matrix, enabling us to make the whole greater than the sum of our parts.

The new ways of working are already reaping rewards for us and the period covered by this Business Plan is about embedding our operating model to maximise the full benefits that coming together affords us.

We have received an outline three-year funding settlement after participation in the 2021 Spending Review process. The overall increase in government funding and growth in expenditure in 2022/23 demonstrates Government's continued support for our mission at a time when public finances have been stretched dealing with the pandemic. Forecast inflation will put additional pressure on resources across the plan period.

## Delivery

The next three years will see more progress being made on some of the highest hazards on our legacy nuclear sites. At Sellafield, over half of the solid waste from the Pile Fuel Storage Pond has already been removed from the facility and we look forward to the first box of waste from the Pile Fuel Cladding Silo being delivered to stores in 2022. This will be another important step in managing this hazard safely.

At Dounreay, important work will continue on the shielded radioactive waste store, where drums of intermediate level waste will be stored for the longer-term in accordance with Scottish Government policy. This year has seen huge steel doors installed and the first roof beams lifted into place.

Across the Magnox sites, work will progress in line with the revised site-specific rolling strategy. The overall strategy and site-specific details will be published when appropriate governance and stakeholder engagement is complete.

*"We are simplifying the way we operate and moving to fewer legal entities, focusing our efforts on performance and value for money."*



The work to find a suitable location for a Geological Disposal Facility, to provide long-term disposal of higher-activity radioactive waste, will continue to be important in the next few years and beyond. Last year we've announced a third community working group in Lincolnshire and two community partnerships have formed in Cumbria, which will boost engagement with local communities and trigger local investment funding.

Following our progress is now easier, through our Mission Progress Report. We launched the second iteration of the report recently, including the latest updated forecasts in our 120-year plus mission delivery programme.

We expect to complete another of our 47 strategic outcomes in the period with the planned cessation of Magnox reprocessing in 2022 at Sellafield.

### **Carbon net zero**

Across our group, sustainability and our commitment to becoming carbon net zero by 2050 and the target of 2045 set by Scottish Government is a priority, though we know we must also make progress in the shorter term to reduce our carbon impact. As a group, we're coming together to meet stretching goals. We're setting our ambitions high, and they'll need us to transform the way we use energy to fuel our sites and buildings and our use and re-use of materials. That said, we're making progress. Last year we celebrated the fact that 100% of NTS' Pintail cargo ship was able to be recycled at the end of its proud service, avoiding any of the vessel having to go to landfill – a first for the UK. Meanwhile, in 2030 we will have switched off Sellafield's combined heat and power plant which has seen emissions decrease due to a reduction in demand for electricity and an improvement in efficiency of the plant.

### **Our people**

Workplace culture continues to be especially important to the NDA group's leaders, building on the significant work that's taken place across our organisations in recent years. Creating great places to work is a core part of the NDA group's vision and in September last year we launched our new five-year strategy on inclusion, setting ourselves stretching goals to achieve by 2025. These goals support our aim to attract, retain and develop a high-performing, highly skilled, talented, and motivated workforce that's more representative of modern Britain and create a culture in which they can thrive. We've made great strides already and our group-wide diversity and inclusion networks offer a forum and support for underrepresented groups. Similarly, we continue our drive to reduce our gender pay gap and work towards ensuring a more inclusive and representative workforce.

Our focus to futureproof our mission saw the launch of our revised early careers strategy, setting out our areas of aspiration and ambition over the next five years. The strategy considers key areas that will help support our work to inspire and attract a diverse range of individuals into the NDA group, while ensuring a pipeline of talented and skilled people at the right point in time to support our decommissioning mission.

### **Our stakeholders**

Following a thorough review of the findings we published our response to the Magnox Inquiry and Departmental Review in July 2021, alongside a separate response from government.

The scrutiny provided by our stakeholders is important and we are actively addressing the recommendations from each review.

The NDA is now a much stronger organisation, operating under a very different model. We've made improvements to the way the NDA operates to provide greater focus, discipline, standardisation, and simplification.

### **Trusted to do more**

In June 2021, the UK Government announced its decision to entrust the NDA group with a new, nationally important UK decommissioning programme, which will be the most significant increase to the NDA's portfolio since our creation in 2005. Recognising the skills, knowledge and experience housed within the NDA group's organisations, the ownership of seven EDF Energy advanced gas-cooled reactor (AGR) sites will transfer to us over the next decade for future decommissioning. Each site will move across on a rolling basis once defueling and fuel free verification are complete, for the decommissioning work to be overseen and managed by Magnox. EDF's defueling work will be supported by Sellafield and NTS alongside other parts of the NDA group. This decision by the Government is testament to the strides we've taken towards a key part of our NDA group vision, being trusted to do more. We'll be working with EDF to ensure the seamless transfer of stations in the coming years.

Our achievements over the last year, both operationally and culturally, have been progressed amidst the effects and difficulties still being posed globally by COVID-19. Our organisations and people have risen to these challenges and are testament to the professionalism and adaptability of our people and their efforts to deliver the mission, have great places to work and to be trusted to do more.

**David Peattie**  
**NDA Group Chief Executive Officer**

# The NDA



It's our duty to carry out this highly complex mission safely and efficiently, ensuring people and the environment are safeguarded at all times.

Safety is, and always will be, our number one priority.

We lead the nuclear clean-up and decommissioning mission on behalf of government and develop the strategy for how it should be carried out.

We evolve our strategy every five years and published our fourth iteration in March 2021.

We strive to deliver best value for the UK taxpayer by focusing on reducing the highest hazards and risks, while ensuring safe, secure and environmentally responsible operations at our sites.

We seek ways to reduce the level of public funding from government by generating revenue from commercial activities.

As owners of one of the largest nuclear decommissioning and remediation programmes in Europe, our main priority is to lead the work across the NDA group. We also play an important role in supporting government's aspiration for the UK to be a global leader in the civil nuclear sector.

## How we're set up

We're a non-departmental public body created by the Energy Act 2004 to lead the clean-up and decommissioning work at our 17 sites on behalf of government.

We're sponsored and funded by the Department for Business, Energy and Industrial Strategy (BEIS).

Our plans for cleaning up the sites are approved by BEIS and Scottish Ministers, who provide a framework for us.

We have five offices across the UK, in Cumbria, Dounreay, Harwell, Warrington and London, and employ just over 380 permanent staff.

As a non-departmental public body, the NDA supports a wide range of government policy developments such as the Nuclear Sector Deal and the Ten Point Plan for a Green Industrial Revolution with intellectual thought, physical assets and R&D.

## Our sites

The UK's nuclear landscape began to take shape in the post-war period and has evolved over many decades. Our 17 sites reflect this and include the first fleet of nuclear power stations, research centres, fuel-related facilities and Sellafield, which has the largest radioactive inventory and the most complex facilities to decommission.

Current plans indicate it will take more than 100 years to complete our core mission of nuclear clean-up and waste management. The ultimate goal is to achieve the end state at all sites by 2125.



**17**

nuclear sites  
across the UK



**17,500**

employees across  
the group



**1,043**

hectares of  
designated  
land on nuclear  
licensed sites



**800+**

buildings to be  
demolished





## The NDA group

We deliver our mission with the help of others. Accomplishing this important work requires the best efforts of the entire NDA group.

Over the last few years, important decisions have been taken on the way in which the organisations that deliver the NDA mission are managed, to create a stronger and more simply structured NDA group.

In the last 12 months we've taken the final steps to move to a group (subsidiary) operating model, away from the previous contractual, parent body organisation approach. Dounreay Site Restoration Ltd (DSRL) became an NDA subsidiary in April 2021, followed by LLWR in July. These follow similar changes for Sellafield in 2016 and Magnox in 2019.

Moving to a group model is enabling us to take further moves to improve and simplify structures, and last year we announced our intention to join Dounreay with Magnox and bring RWM and LLWR together into one waste organisation. This will see the NDA group being made up of the NDA and its four key component parts: Sellafield, Magnox with Dounreay, Nuclear Waste Services and Nuclear Transport Solutions. Our other subsidiaries include Rutherford Indemnity, NDA Archives, NDA Properties and Energus.

The scope of the NDA group is set to grow, following arrangements agreed by the UK Government and EDF for decommissioning Britain's seven advanced gas-cooled reactors (AGRs). The AGRs will reach the end of their operational lives over the next 10 years and as they come offline their ownership will transfer to the NDA for decommissioning, utilising the expertise of our group and significantly Magnox and its experience in decommissioning the older Magnox stations.



## Our Vision

As well as our shared mission, our unified vision reflects the collective ambitions of the NDA group:

Deliver our mission together safely, securely and more creatively, transparently and efficiently



Create great places to work and taking pride in what we do

Trusted to do more in the UK and globally



# Our funding

We are publicly funded through the Department for Business, Energy and Industrial Strategy (BEIS). Our total planned expenditure is voted upon annually by Parliament in line with the Spending Review.

## Funding framework

Government has shown continued support for the NDA mission over recent years with increased grant funding offsetting the decline in commercial revenue. Spending review 2021 set funding for three financial years from 2022/23 to 2024/25.

## Commercial income

We maximise revenue from our existing assets and operations to help fund decommissioning and clean-up, in order to reduce the level of public funding needed to meet the scope of our plans and delivery of the NDA mission.

Our commercial operations are primarily spent fuel and nuclear materials management with additional opportunities identified in providing transportation services.

We will pursue all commercial opportunities using our existing assets, operations and people where they do not materially impact on our core mission or increase our liabilities.

## Prioritisation and allocation of funding

Within affordability constraints, we will seek to maintain progress and maximise value for money through the effective implementation of our strategy. This means focusing on reducing our highest hazards and risks, whilst ensuring that safe, secure and environmentally responsible site operations are maintained.

## Planned income and expenditure in 2022/23

This Business Plan sets out our anticipated income and expenditure for 2022/23 as agreed with Treasury and BEIS.

Our total planned expenditure for 2022/23 is £3.645 billion, of which £2.825 billion will be funded by UK Government and £0.820 billion by income from commercial operations.

Planned expenditure on site programmes will be £3.389 billion, while non-site expenditure is expected to be £0.256 billion.

This non-site expenditure includes skills development, socio-economic, research and development, insurance and pension costs, fees to businesses, implementing geological disposal and the NDA operating costs as detailed on page 18.

**£3.645bn**

Total planned expenditure 2022/2023

**£2.825bn**

Funded by UK government

**£3.389bn**

Planned site expenditure

**£0.256bn**

Planned non-site expenditure



## Planned income and expenditure summary 2022/23

| £M<br>Businesses/Sites                       | Decom &<br>Clean-up<br>Costs<br>(A) | Total<br>Operations<br>Costs:<br>Running<br>Cost (B) | Total<br>Operations<br>Costs:<br>Capex (C) | 2022/23<br>Plan<br>Total<br>(A+B+C) | 2021/22<br>Plan<br>Total |
|--|-------------------------------------|--|--|-------------------------------------|--------------------------|
| Sellafield Ltd                               | 1,196                               | 706  | 443  | 2,345                               | 2,220                    |
| Magnox Ltd                                   | 515                                 |  |  | 515                                 | 505                      |
| Dounreay Site Restoration Ltd                | 205                                 |  |  | 205                                 | 200                      |
| Radioactive Waste<br>Management Ltd          | 92                                  |  |  | 92                                  | 78                       |
| LLWR Ltd                                     | 85                                  |  |  | 85                                  | 77                       |
| Springfields Fuels Ltd                       | 30                                  |  |  | 30                                  | 36                       |
| Capenhurst                                   | 31                                  |  |  | 31                                  | 22                       |
| Nuclear Transport and<br>Contract Management |                                     | 86   |  | 86                                  | 107                      |
| Non-Site Expenditure                         | 256                                 |  |  | 256                                 | 249                      |
| <b>TOTAL</b>                                 | <b>2,410</b>                        | <b>792</b>   | <b>443</b>                                 | <b>3,645</b>                        | <b>3,494</b>             |
| Income                                       |                                     |  |  | 820                                 | 964*                     |
| Net (grant funded)                           |                                     |  |  | 2,825                               | 2,530*                   |

Notes:

- Numbers may not cast due to rounding
  - Final Annual Site Funding Limits issued in March 2022 may be adjusted to reflect efficiency, performance and portfolio pressures.
  - The NDA reserves the right to reallocate funding to meet prioritised programme needs.
- \* Additional income and corresponding reduction in Grant-in-Aid / Net spend reflect changes in timing assumptions of revenue recognition - no impact on expenditure level.

## Summary of NDA funding 2022/23 onward

| Summary of NDA funding | 2022/23<br>£M | 2023/24<br>£M | 2024/25<br>£M |
|------------------------|---------------|---------------|---------------|
| Income                 | 820           | 802           | 924           |
| Government Funding     | 2,825         | 2,963         | 2,940         |
| Expenditure            | (3,645)       | (3,765)       | (3,864)       |
| <b>Net</b>             | <b>-</b>      | <b>-</b>      | <b>-</b>      |

# Our funding contd

## 2022/23 breakdown of non-site expenditure

| Non-site expenditure | 2022/23<br>Plan<br>£M | 2021/22<br>Plan<br>£M |
|----------------------|-----------------------|-----------------------|
| NDA operating costs  | 66                    | 66                    |
| Critical enablers    | 71                    | 67                    |
| Estate Insurance     | 11                    | 23                    |
| Other central spend  | 108                   | 93                    |
| <b>Total</b>         | <b>256</b>            | <b>249</b>            |

## 2022/23 breakdown of planned income by category

| Income source                             | 2022/23<br>Plan<br>£M | 2021/22<br>Plan<br>£M |
|---|-----------------------|-----------------------|
| Reprocessing and fuel management services | 548                   | 545                   |
| NDA - INS transport                       | 51                    | 76                    |
| NDA Contracts                             | 177                   | 307                   |
| Intra site services                       | 44                    | 36                    |
| <b>Total</b>                              | <b>820</b>            | <b>964</b>            |

Current plans indicate it will take 100+ years to complete our core mission of nuclear clean-up and waste management.



# Our strategic approach and themes

We use five strategic themes to describe all the activities needed to deliver the NDA's mission.

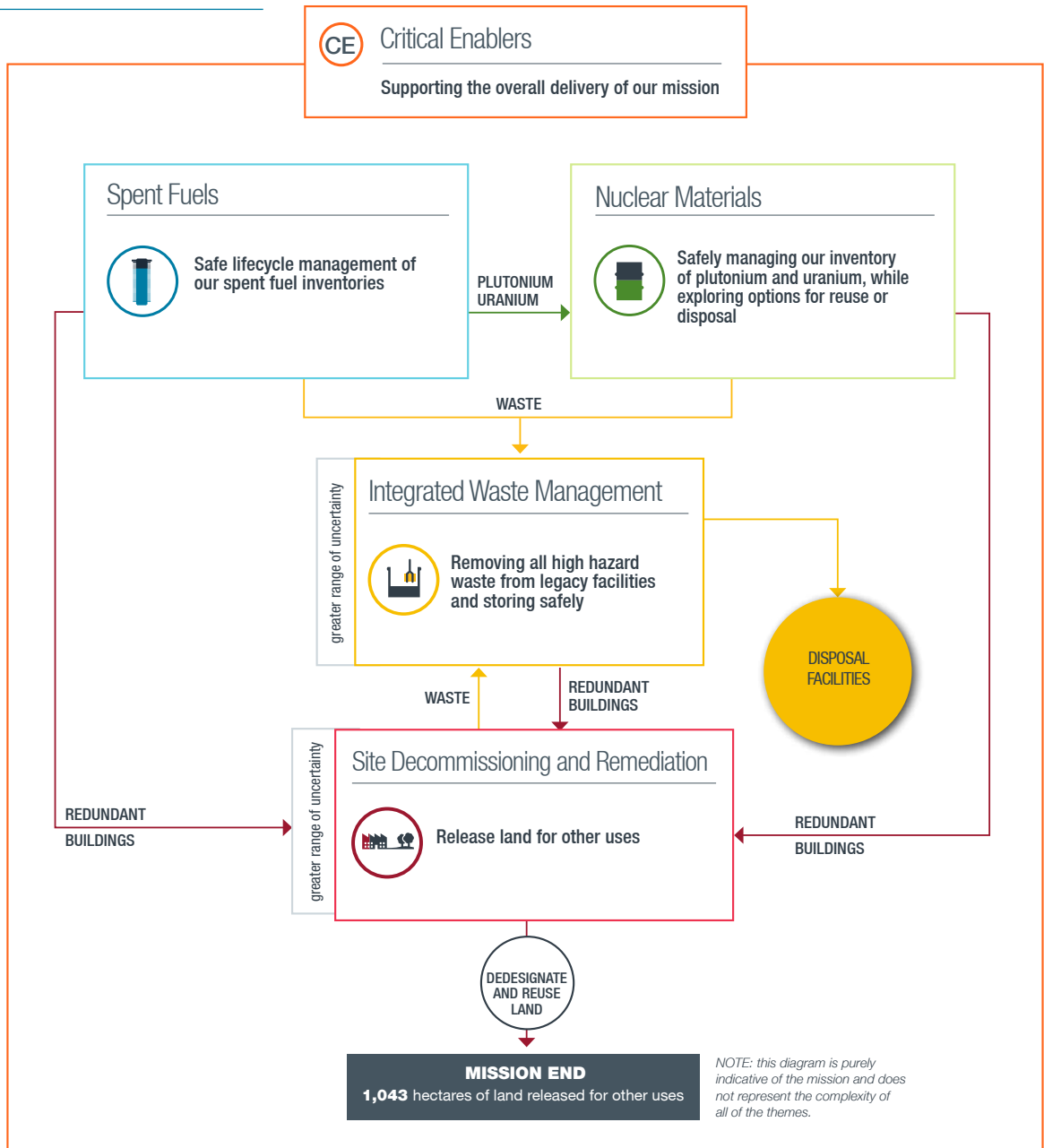
The first four strategic themes, Spent Fuels, Nuclear Materials, Integrated Waste Management and Site Decommissioning and Remediation relate directly to our clean-up and decommissioning work and are known as driving themes.

The fifth theme describes the important activities needed to support the delivery of our mission and

is known as Critical Enablers. The diagram below demonstrates how they interplay.

Currently, the most urgent task is dealing with our sites' highest-hazard materials, spent fuel, nuclear materials and highly-radioactive wastes. Once the inventory has been made safe, the redundant nuclear facilities can be dismantled and demolished.

## Integration of our strategies



# Our five themes

---



## Spent Fuels

Our strategy defines our approach to managing the diverse range of spent fuels for which we are responsible, which are divided into Magnox, Oxide and Exotic. Once spent fuel is removed from a reactor, it is stored in a pond or dry store until it can be dispatched to Sellafield.

Reprocessing extracts materials (plutonium and uranium) that could potentially be re-used and

also generates highly radioactive wastes, or fission products.

The NDA's strategy is to bring the reprocessing programme to an end. The THORP reprocessing plant has already closed and the Magnox reprocessing plant will follow. All remaining spent fuel will be safely stored until a permanent solution for disposal is available.

Our spent fuel work is separated into 15 strategic outcomes that we must deliver, outlined on page 24.

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## Nuclear Materials

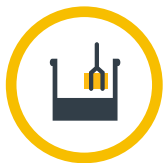
Our strategy defines our approach to dealing with the inventory of uranium and plutonium currently stored on some of our sites. These nuclear materials are by-products from different phases of the fuel cycle, either manufacturing or reprocessing. All nuclear materials must be managed safely and securely, by either converting them into new fuel or immobilising and storing them until a permanent UK

disposal facility is available.

All of our plutonium is stored at Sellafield. Our uranium is located at a number of our sites and we are continuing to consolidate it at sites which we consider are best suited to its management.

Our nuclear materials work is separated into 10 strategic outcomes that we must deliver, outlined on page 25.

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## Integrated Waste Management

Our strategy considers how we manage all forms of waste arising from operating and decommissioning our sites, including waste retrieved from legacy facilities. Managing the large quantities of radioactive waste from electricity generation, research, the early defence programme and decommissioning is one of the NDA's biggest challenges. Some of this radioactive waste is in a raw (untreated) form, some has been treated and

is being interim stored and, in the case of low level waste, some has already been permanently disposed of.

Retrieving, treating and interim storing the radioactive waste from Sellafield's four legacy ponds and silo facilities is the NDA's highest priority.

Our integrated waste management work is separated into 14 strategic outcomes that we must deliver, outlined on page 26.

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## Site Decommissioning and Remediation

Our strategy defines our approach to decommissioning redundant facilities and managing land quality in order that each site can be released for its next planned use.

After the buildings on our sites have been decommissioned, decontaminated and dismantled the land will be cleaned up to allow it to be released

for other uses. At that point, its ownership would transfer to the new user of the land.

The NDA is currently assessing alternatives for the final stages of decommissioning that could lead to earlier release of land, continued employment and opportunities to reuse the land.

Our site decommissioning and remediation work is separated into eight strategic outcomes that we must deliver, outlined on page 27.

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## Critical Enablers

Some of the work we do, we describe as 'critical enablers'. Critical enablers cover the important activities needed to support the overall delivery of our mission. See pages 28 to 32 for more detail.

# Work featuring in 2022-2025





Work to construct the Doureay Cementation Plant store extension

This Business Plan covers the work we will do over the next three years to progress or complete activity across our five strategic themes. You can find the 2022-2025 plans for each of the NDA group operating companies on pages 34 to 61.

The next few pages present in more detail examples of some of the important work that will either be completed or advanced in the next three years. This near-term activity is mapped against our strategic themes and specifically to the 47 outcomes\* that make up our mission.

\*Our 47 outcomes cover all our strategic themes except 'critical enablers'.

## Spent Fuels

| SPENT MAGNOX FUEL |  | End date  |
|-------------------|--|-----------|
| 1                 | All sites defueled                           | COMPLETED |
| 2                 | All legacy Magnox fuel retrieved             | 2025      |
| 3                 | All Magnox fuel reprocessing completed       | 2022      |
| 4                 | All remaining Magnox fuel in interim storage | 2025      |
| 5                 | All remaining Magnox fuel disposed           | 2125      |
| SPENT OXIDE FUEL  |  |           |
| 6                 | All EDFE Oxide fuel received                 | 2035      |
| 7                 | All legacy oxide fuel retrieved              | COMPLETED |
| 8                 | All oxide fuel reprocessing completed        | COMPLETED |
| 9                 | All remaining oxide fuel in interim storage  | 2035      |
| 10                | All remaining oxide fuel disposed            | 2125      |
| SPENT EXOTIC FUEL |  |           |
| 11                | All exotic fuel defueled                     | 2024      |
| 12                | All exotic fuel consolidated                 | 2028      |
| 13                | All exotic fuel reprocessing completed       | 2022      |
| 14                | All remaining exotic fuel in interim storage | 2028      |
| 15                | All remaining exotic fuel disposed           | 2125      |

## Spent Fuels 2022-2025



Magnox Reprocessing Plant - Sellafield  
End of reprocessing

*Delivering strategic outcome 3 -  
All Magnox fuel reprocessing completed*

*Delivering strategic outcome 11 -  
All exotic fuel defueled*

*Delivering strategic outcome 13 -  
All exotic fuel reprocessing completed*

Magnox reprocessing operations are now scheduled to finish in 2022. This will be the final stage in reprocessing the remaining spent fuel from the UK's Magnox reactors, the world's first type of commercial nuclear power station.

The plant, at Sellafield, had been scheduled to close in 2020, but delays and a controlled shutdown of the plant, caused by the COVID-19 pandemic, means the end of Magnox reprocessing is now expected in 2022.

The end of Magnox reprocessing will mark the end of a remarkable chapter in Sellafield's history.

There are just over 270 tonnes of Magnox fuel left to process. This is less than 1% of the total quantity of fuel that has been through the chemical process to separate uranium, plutonium and fission products from the spent nuclear fuel.



Dounreay Fast Reactor

Work to remove the last remaining radioactive fuel elements from inside the Dounreay Fast Reactor and transporting the material for consolidation at Sellafield will continue to be a priority.

For more information on the management of spent fuels please see section five of the NDA Strategy.





# Nuclear Materials

## PLUTONIUM

End date

16 All plutonium produced 2022

17 All plutonium consolidated COMPLETED

18 A: All plutonium repacked in long-term storage  
B: All cans not suitable for extended storage repackaged 2060

19 All plutonium in modern interim storage 2060

20 All plutonium reused or disposed 2120

## URANICS

21 All uranium produced 2022

22 All uranium consolidated 2025

23 All uranium treated 2055

24 All uranium in interim storage 2055

25 All uranium reused or disposed 2120

# Nuclear Materials 2022-2025



Hexafluoride drums being stored at Capenhurst

### Uranium consolidation

*Delivering strategic outcome 22 -  
All uranium consolidated*

Reprocessing spent nuclear fuel separates uranium, plutonium and other fission products. Large quantities, approximately 54,000 tonnes of uranium, in various forms, have been generated as a legacy of the UK's civil nuclear programme. The NDA is responsible for safely managing this inventory of uranic material.

80% of this uranic material has now been consolidated at the Capenhurst site in Cheshire, where it is safely stored pending a decision on future use or disposition.

Approximately 3,000 tonnes of uranium still need to be consolidated:

- 2,000 tonnes in the form of uranium hexafluoride at Springfields fuel manufacturing site in Lancashire
- 270 tonnes at Sellafield have yet to be produced through reprocessing operations
- The remainder is held in various sites across the NDA group

Good progress continues to be made in the programme of work to re-validate the inventory and the timescales for moving the remaining inventory to Capenhurst, including ongoing monitoring and assessment to ensure the material continues to be stored safely.



## Integrated Waste Management

### LOW LEVEL WASTE

End date

26 All LLW produced 2127

27 All LLW treated - to enable diversion or reuse 2127

28 All waste suitable for disposal in NDA facilities 2127

29 All waste suitable for permitted landfill disposed 2127

### INTERMEDIATE LEVEL WASTE

30 All ILW produced 2120

31 All legacy waste retrieved 2048

32 All ILW treated 2120

33 All ILW in interim storage 2120

34 All ILW disposed 2125

### HIGH LEVEL WASTE

35 All HLW produced 2030

36 All HLW treated 2030

37 All HLW waste in interim storage 2030

38 All overseas HLW exported 2025

39 All HLW disposed 2104

## Integrated Waste Management 2022-2025



Doors being cut in the Pile Fuel Cladding Silo

### Legacy ponds and silos

*Work to deliver strategic outcome 31 - All legacy waste retrieved*

The next three years will see work at Sellafield's four legacy ponds and silos gather pace to remove high hazard waste for safe storage in modern facilities at the site.

The ponds and silos pose some of the most complex decommissioning challenges in the world, and significant progress has already been made in retrieving some of the waste.

Over half of the solid waste at the site's Pile Fuel Storage Pond facility has now been removed and we look forward to the first box of waste from the Pile Fuel Cladding Silo being delivered to stores in 2022, which will be another major step in the safe management of this high hazard facility.



Pile Fuel Cladding Silo doors being installed



## Site Decommissioning and Remediation

OPERATIONAL AND PLANNED      End date

40 All planned new buildings operational      2090

41 All buildings primary function completed      2127

### DECOMMISSIONING AND DEMOLITION

42 All buildings decommissioned      2131

43 All buildings demolished or reused      2133

### SITES

44 All land delicensed or relicensed      2135

45 All land in End State - all planned physical work complete      2134

46 All land demonstrated as suitable for reuse      2135

47 All land dedesignated or reused      2333

# Site Decommissioning and Remediation 2022-2025



Trawsfynydd, North Wales where reactor decommissioning is being brought forwards

### Magnox Reactor Decommissioning

*Work to deliver strategic outcomes 42 and 43 - All buildings decommissioned, demolished or reused*

Following a review of Magnox reactor decommissioning, we concluded that a site-specific approach should be taken, based on a range of factors including design, location, age and condition. This new approach was set out in Strategy 4, published in March 2021.

The intention is that the site-specific decommissioning strategies will be continually reviewed and optimised using the learning obtained from the sites being decommissioned.

This important programme of work will be informed by local and national stakeholder views and will include any necessary revisions to enabling strategies like skills and the supply chain.

### Dounreay Prototype Fast Reactor Decommissioning

*Work to deliver strategic outcomes 42 and 43 - All buildings decommissioned, demolished or reused*

During 2021, we saw one of the most significant hazards at Dounreay removed, following four years of complex problem solving, in a 40-hour operation.

Around 1,810 litres of radioactive sodium coolant (approximately 1.7 tonnes) remaining in a 'heel' pool at the base of the reactor vessel in the Prototype Fast Reactor (PFR) has been pumped out using specially designed equipment.

Removing the heel pool was a major hurdle in the programme that has now been overcome, as the amount of liquid metal had to be reduced before the interior of the reactor vessel could be treated. It paves the way for the next step in the decommissioning of PFR to take place and the project is on course to complete the clean out work by the end of 2023.

The technical and practical challenges to overcome were considerable. The project required the support from all the disciplines and specialists available on site as well as contractors off site. The project could not have been delivered without this collaborative approach.

### Pile Chimney decommissioning progress

*Work to deliver strategic outcomes 42 and 43 - All buildings decommissioned, demolished or reused*

Nuclear clean-up teams have removed the huge diffuser at the top of the Windscale Pile Chimney on the Sellafield site after three years of careful dismantling. The diffuser gave the 125-metre chimney its distinctive top-heavy appearance and its removal has taken away the seismic risk associated with the chimney.

Work is now taking place to remove a metal frame platform and reduce the access shaft. Once that work is complete, a key delivery milestone will be met. Following this, work will start on demolishing the chimney barrel.



# Critical Enablers 2022-2025

## Group structure



### Bringing the group together

In January we took another step in our journey to create a stronger and more simply structured NDA group with our waste subsidiaries joining to create a single waste division, Nuclear Waste Services. This has brought together LLWR and Radioactive Waste Management to enact the NDA's integrated waste management programme. It's an exciting milestone for our group and will allow us to grow our waste capability and expertise even further.

Dounreay also transferred to an NDA subsidiary in 2021, and will join with Magnox in the next 18 months. There will be no fundamental change to the current work programme at Magnox, or at Dounreay, and over time, will bring more opportunities for collaboration and enhance our sharing of skills and knowledge.

These changes follow on from successfully bringing together our transport operating companies, Direct Rail Services (DRS), International Nuclear Services (INS) and Pacific Nuclear Transport Ltd (PNTL) in April 2021 to create Nuclear Transport Solutions (NTS), a centre of excellence for nuclear transport, packaging and logistics.

## Diversity and inclusion



### Making inclusion part of our DNA

Creating great places to work is a core part of the NDA group's vision. At the heart of this is developing a culture of respect and inclusion where diversity is embraced, and people can feel included, respected, and able to perform at their best.

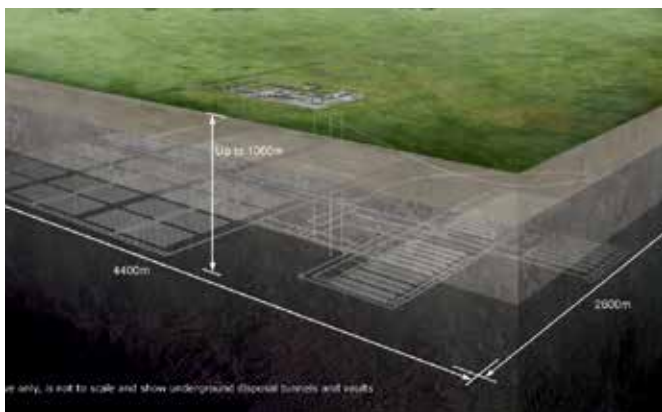
Our group diversity and inclusion journey has gained some momentum this year as we saw the launch of our NDA group Inclusion Strategy 2021-2025. This strategy builds on the positive foundations that have been built since the development of our first strategy in 2018. 2021/22 has been a critical year as we move from foundation building to the next phase, focused on embedding inclusion into the DNA and culture of all our operating companies.

Our Inclusion Strategy focuses on five key themes:

- **Inclusive Culture and Leadership** - Leading inclusively, creating safe environments so people can bring their full selves to work.
- **Workforce Diversity** - Building diversity, recruiting and maintaining a workforce that includes people from all backgrounds, bringing different viewpoints and ideas into our business.
- **Embedding Inclusion through the employee lifecycle** - Integrating inclusivity, ensuring our employees feel included at every step, so everyone can flourish.
- **Respect, dignity, and employee voice** - Engaging our people, listening, understanding, and acting on what our employees think and feel, so we can build a truly inclusive culture.
- **Flexibility, agility, and smarter working** - Creating an agile culture, developing working arrangements built on mutual trust and business benefit, supporting productivity, employee wellbeing and helping us to attract and keep our talent.

We have set ourselves stretching goals, against which we'll measure ourselves and use to report progress over the next five years. See our NDA group Inclusion Strategy 2021-2025 for more detail.

## GDF community engagement



### Progress to the next stages of finding a suitable site

Radioactive Waste Management's work with local communities to find a willing community and a suitable site to host a geological disposal facility (GDF) has stepped up a gear.

Following the announcement that the first community working groups had been formed to explore the opportunity of hosting a facility built to safely dispose of the UK's higher activity radioactive waste, work continues to progress to the next stage of engagement.

Two Cumbrian working groups - Copeland and Allerdale - have both recently identified potential search areas where RWM could begin to look for a site for the GDF. Two search areas have been proposed in Copeland and one in Allerdale, with a community partnership forming for each.

This will unlock investment funding of up to £1 million a year for community projects that drive economic development, improve the environment and community well-being. This figure would rise to £2.5 million a year if site investigations progress to the point of deep borehole drilling.

Separately, three local authorities have now agreed to join a working group which is being formed in Theddlethorpe, Lincolnshire.

The formation of the working group will be the starting point for wider engagement about geological disposal, between RWM and the parties involved so that together they can understand if there is a site that might be suitable, and if the community might be willing to host a GDF.

## Cyber security



### National cyber collaboration

Working with partners from across the sector, the NDA's cyber security resilience programme is busy preparing for the national cyber exercise Golden Osprey to be run in 2022. The fifth in an annual series for the sector, it will be hosted at the Energen facility in west Cumbria, after a fully remote execution in 2021 due to COVID-19.

Working closely with Department for Business, Energy and Industrial Strategy (BEIS), Office for Nuclear Regulation (ONR) and the National Cyber Security Centre (NCSC), the exercise scenario and simulation environment is developed under guidance from a steering committee composed of experts across the sector. To ensure a high degree of relevance and realism, scenario development is supported by the NCSC, ONR, EDF Energy, Westinghouse Springfields Fuel, Urenco, Sellafield, Nuclear Transport Solutions, Dounreay Site Restoration Limited, Atos, and the Civil Nuclear Constabulary (CNC).

Unique across all critical infrastructure sectors and taking on greater challenges each year, the exercise provides the opportunity for experts to test and renew skills, improve technical knowledge and proficiency, and develop analytical and communications skills in a very dynamic environment. Typically, the scenario is developed around the concept of sophisticated adversaries targeting critical infrastructure and the supply chains that support it.

Attended by over 20 different sector organisations from across the UK over the years, this one-of-a-kind exercise brings significant training and upskilling opportunities to west Cumbria and the north of England. Through onsite and remote visits, an observer platform, and peripheral activities, the exercise series has helped hundreds better appreciate cyber threats and improve the sector's overall preparedness to counter them.

## Research and innovation



### Defence and security accelerator

The NDA entered a five-year collaboration agreement with the Defence and Security Accelerator (DASA) to support work on challenges aimed at driving forward innovation across sectors.

The agreement enables fully-funded NDA challenges and co-funded opportunities on areas of mutual interest and benefit. Working together leverages greater research and development funding and further access to a wider supply chain.

By collaborating outside of the traditional nuclear sector with those that look to answer similar core challenges, the NDA group has access to wider expertise, lessons learned from previous projects and identify new technology transfer opportunities. Working with other sectors forms a key part of the NDA group's approach to innovation, as outlined in the latest NDA Strategy.

In 2021, the NDA co-funded a competition through DASA with the Defence Science and Technology Laboratory focusing on telepresence capability which allows people to operate in environments without physically being there. The project supports the NDA's goal of ensuring safer working environments for people as it moves through its decommissioning mission.

## Public engagement



### Strategy 4 – Public and Stakeholder Engagement as a key enabler

Public and stakeholder engagement is a key enabler to our mission, as set out in in the NDA's strategy. The Energy Act 2004 established the NDA as an open and transparent organisation with a duty to engage and consult with stakeholders.

In 2021 we published our fourth iteration of the NDA strategy, following a robust period of consultation. In line with safety measures relating to the COVID-19 pandemic, we had to move away from our tried and tested face-to-face engagements to virtual means to connect with our stakeholders. The priority remained maintaining a meaningful consultation and hearing from a diverse as possible range of people.

Adopting digital mechanisms has opened up new opportunities for us, and allowed for greater levels of flexibility, making it easier for some of our stakeholders to get involved. Despite worries about the impact of COVID-19 on our ability to consult, we've received our greatest ever consultation response this year.

Engaging with stakeholders is a continual priority for us, helping us to develop goals and outcomes informed by external perspectives. We share an aspiration with our stakeholders to extend our reach to groups who, in the past, we've found it harder to engage with, including young people. This will see us prioritising digital, visual, and creative communications alongside our more traditional routes, and further improving the flexibility of our interactions to encourage an even more diverse discussion.

## Socio economics



### St Ola Pier

We have a responsibility to support the sustainability of our sites' communities, up to and after their closure. The NDA group's socio-economic strategy is built upon supporting sustainable incomes, resilient economies and thriving communities. Our approach is to work locally. This means working in partnership with local authorities and organisations to better understand local needs.

St Ola Pier, at Scrabster Harbour in Thurso, Caithness, has been at the heart of a major development project to allow the port to accommodate larger and deeper vessels. Enabling port infrastructure for growth in the energy industry and cruise tourism.

In developing the existing pier, a more versatile port infrastructure has been created to increase capacity and functionality. Specifically, work on the pier and quay walls have created a 375-metre deep-water berthing area, including a new 250-metre outer berth. A deck area and dedicated heavy lift pad also features in the redevelopment.

The project has cost a total of £18.9 million, with the NDA providing funding support of £5 million along with its partners Highlands and Islands Enterprise.

The port development was officially opened on 10 December 2021.

# Sustainability



We have a legal, moral, and ethical responsibility to deliver our mission sustainably, with care for our people, communities, and the environment. Demonstrating its importance to the NDA group, sustainability has been introduced as a critical enabler to our mission in the NDA Strategy 4, published in 2021. To enable our commitment to delivering sustainable outcomes, an NDA group Sustainability Strategy and Policy will set the direction for the NDA group in this important area and set down the goals we will work towards. Some case studies of sustainability at NDA:

## 100% of 3,865-tonne specialist nuclear vessel recycled in a unique first for UK fleet

The decommissioning of Oceanic Pintail has set the standard others must follow after 100% of the 3,865-tonne specialist nuclear vessel was recycled.

Nuclear Transport Solutions (NTS), which operated Oceanic Pintail, set Dales Marine Services the challenge of ensuring the world-class cargo vessel was reused.

Applying a number of innovative techniques, every part of the NDA-owned vessel was recycled in a UK first. The achievement supports both the NDA group and Government's carbon net zero ambitions.

## Nucleus, the Nuclear and Caithness Archives – Working towards Net Zero

Nucleus was established by the NDA in 2015, in Wick, Caithness Scotland to manage the nuclear industry's records.

Throughout 2022 and beyond, the site is working towards carbon net zero status. This will include an upgrade to the lighting, heating, and introducing solar power.

The multiple environmental and social economic benefits being delivered and sought include:

- More than 60 jobs for local people
- Rainwater harvesting providing all the water required for toilet flushing as well as additional water saving features.
- Reduced CO<sub>2</sub> transport emissions by introducing a digitisation project, removing the need to physically transfer large amounts of records around the UK

## NDA Value Framework – Renewed focus to sustainability and social value

The decisions we make must deliver value for money in its broadest sense. Our stakeholders, including government, require that we have a clear definition of value for money applied to nuclear decommissioning.

The latest version of the NDA's Value Framework gives renewed focus on demonstrating sustainability and social value of decisions taken using the NDA Value Framework decision-criteria reflecting both the ambition of stakeholders involved in nuclear decommissioning, the aspirations of wider UK government policy and is aligned to the UN Sustainable Development Goals.

## On track to cut plastic pollution at LLWR

LLWR is playing its part in reducing waste plastic by opting to incorporate an additive to the tarmac for use in the current resurfacing work, on the site perimeter track.

In every tonne of asphalt used for resurfacing, 3kg of bitumen are replaced with the equivalent of the plastic additive. This additive is composed of non-recyclable waste plastics which would have previously been destined for landfill.

Some 12,840kg of the additive will be used in the project. A single use plastic bag weighs around 4.5g, so the amount of recycled plastic equates to 2,853,333 single use bags that will now no longer reach landfill.

## The WELL project!

Western Excellence in Learning and Leadership (WELL) was a project co-designed by Sellafeld Ltd, the NDA, Cumbria County Council and school heads from the Cumbria Alliance of System Leaders. It aims to close the disadvantage attainment gap, raise pupil achievement, improve the quality of teaching, and enhance students' health and wellbeing in Cumbria. Highlights include:

- 118 schools have implemented proven interventions to support resilience and learning for disadvantaged students
- 43 schools have completed youth mental health first aid training
- 40 schools now have staff qualified as Emotional Literacy Support Assistants
- 71 schools were provided with surplus IT equipment to support disadvantaged learners to access material through the lockdown

## Oldbury Lagoon 3

Oldbury Site's 'Lagoon 3' is an area of designated land owned by NDA and leased to Magnox adjacent to the Oldbury Site. The ecological value of regenerating this area has been highlighted by South Gloucestershire Council, Natural England and the Avon Wildlife Trust.

Magnox is working with the NDA to develop a strategic solution to:

- Create an area of wetland suitable for important wintering bird species
- Make the area accessible for visitors and local community
- Highlight NDA's commitment to ensuring the ecological/environmental sustainability of our sites
- Potentially hand over ownership of the lagoon to a third party to manage as a nature reserve



# NDA group key activities



Preparing for decommissioning work at the Low Level Waste Repository

The NDA group's key activities for the next three years are set out on the following pages.

All activities and dates shown in the subsequent pages represent the latest emerging information and are subject to change.

Where we expect an activity to complete during the Business Plan period, this is clearly stated. All other activities will continue into the following year.

## Important milestones

2022-2025

- Lead the strategic diversity and inclusion agenda across the NDA group
- Implement the NDA group Sustainability Strategy, and progress an embedded NDA group and NDA common approach to sustainability
- Implement and embed the NDA Leadership Academy and develop an NDA group Talent Strategy which will enable us to attract, develop and retain the talent and leaders we need to deliver the mission
- Refresh and 're-imagine' a new future for our organisation helping us continue to make the NDA a great place to work

Planned expenditure for 2022/23

**£66 million**

### Key activities

Timescale

#### Spent Fuels

|   |           |
|---|-----------|
| Continue to work with EDF Energy and our subsidiaries on the integrated and collaborative delivery programme for the safe and cost-effective defueling of AGR power stations, the AGR Operating Programme | 2022-2025 |
| Work with our group businesses to optimise the strategy for the Consolidation of exotic fuels from Dounreay to Sellafield   | 2022-2025 |

#### Nuclear Materials

|  |           |
|--|-----------|
| Work with the UK government on a disposition solution that puts the UK's plutonium beyond reach  | 2022-2025 |
| Implement a programme of research and development to mature the credible options for plutonium disposition   | 2022-2025 |
| In line with our Strategy, and following business case approval, implement the preferred approach to dealing with the NDA owned uranium hexafluoride at Capenhurst | 2022-2025 |

#### Integrated Waste Management

|   |           |
|---|-----------|
| To make more use of a risk informed approach for waste management and to seek solutions that help to optimise the lifecycle of both radioactive and nonradioactive wastes. This risk-informed approach enables wider application of the Waste Hierarchy and allows us to make optimum use of our treatment, storage and disposal infrastructure | 2022-2025 |
| Work with group businesses to explore alternative disposal options for Higher Activity Waste  | 2022-2025 |

#### Site Decommissioning and Remediation

|   |           |
|---|-----------|
| Review the use of Safety and Environmental Detriment scores to determine if and how they might be improved as a consistent means of expressing the level of risk to people and the environment. Seek to develop meaningful indicators for other factors in the Value Framework as an input to decision-making | 2022-2025 |
| Ensure that approaches to decommissioning and remediation reflect the changing level and nature of hazards that exist throughout the lifetime of a nuclear installation, and support businesses with developing proportionate arrangements  | 2022-2025 |
| Work with government, regulators and local communities to ensure that remediation of our sites is safe, sustainable and publicly acceptable, and enables their beneficial reuse as early as possible  | 2022-2025 |
| Facilitate beneficial reuse of wastes generated from demolition activities and land remediation to restore sites where it represents the most sustainable solution  | 2022-2025 |
| Engage with UK government and local government to better understand what they need from NDA land and develop our understanding of the controls required to reuse our sites safely where residual contamination is being managed   | 2022-2025 |

| Key activities  | Timescale |
|---|-----------|
| <b>Regulatory Engagement</b>  |           |
| Continue working with regulators and government to determine institutional controls appropriate to restoration of nuclear sites will remain   | 2022-2025 |
| <b>Critical Enablers</b>  |           |
| Develop strategic opportunities that optimise delivery of the mission   | 2022-2025 |
| Active participation in the Nuclear Sector Deal to help achieve HMG deliverables  | 2022-2025 |
| Provide support to government on nuclear new build decommissioning plans  | 2022-2025 |
| Develop a group-wide accommodation strategy (including welfare, warehousing, transport and logistics) allowing effective re-use of the operational land for construction of new facilities required to deliver the NDA mission                                  | 2022-2025 |
| <b>Sustainability &amp; Health, Safety, Environment &amp; Wellbeing</b>   |           |
| To ensure that our mission outcomes and the journey to deliver them are sustainable   | 2022-2025 |
| Having established our group carbon footprint, group carbon policy and a roadmap to net zero by 2050, we will develop and implement carbon reductions through carbon management plans at each operating company   | 2022-2025 |
| We will deliver a natural capital baseline assessment of our NDA owned land and develop a plan to improve the environmental value of this land where this aligns with other strategic land use opportunities  | 2022-2025 |
| Contribute to environment sustainability performance and meet Greening Government Commitment  | 2022-2025 |
| Lead in the area of Mental Health and Wellbeing across the NDA group and further enhance the wellbeing community across the group   | 2022-2025 |
| <b>Security, Resilience, ICT, Information Governance &amp; Digital</b>  |           |
| Implement new ICT programmes to allow smarter, flexible working across the NDA. To include digital transformation and Information Governance initiatives aimed at improving the way we work, whilst maintaining information security and legislative compliance | 2022-2025 |
| Lead on the development and co-creation of a Digital Vision and Strategy for the group  | 2022-2025 |
| Support implementation of forthcoming new nuclear emergency preparedness standards across the NDA group, as part of the UK's implementation of the Basic Safety Standards Directive 2013  | 2022-2025 |
| <b>Cyber Security</b>   |           |
| Proactively deter, detect, defend against, recover from and be resilient to both current and evolving cyber threats   | 2022-2025 |
| <b>Research, Development and Innovation</b>   |           |
| Work with other nuclear and non-nuclear organisations to encourage and leverage cross-sector investment in RD&I and foster technology transfer between sectors and internationally  | 2022-2025 |
| Lead the promotion and adoption of technology and innovation across the NDA group, developing an environment where innovation can thrive  | 2022-2025 |
| Work collaboratively across the NDA group to embed good practices in Technology and Innovation Management and Technical Assurance   | 2022-2025 |
| <b>People</b>   |           |
| Enable and drive the delivery of our mission through our people by attracting, retaining and developing a high performing, highly skilled, talented and motivated workforce and creating a culture in which they can thrive                                     | 2022-2025 |
| Lead the strategic diversity and inclusion agenda across the NDA group ensuring effective governance and oversight to drive One NDA Inclusion, including achieving targets in the Nuclear Sector Deal and supporting our vision to create great places to work  | 2022-2025 |
| Implement government led reforms of public sector pensions across the NDA group   | 2022-2025 |
| <b>Asset Management</b>   |           |
| To secure safe, reliable, maintainable and sustainable asset performance and optimise through life cost of assets   | 2022-2025 |
| <b>Supply Chain</b>   |           |
| To build commercial capability which maintains a resilient, sustainable, diverse, ethical and innovative supply chain that optimises value for money for the UK taxpayer when sourcing goods and services   | 2022-2025 |
| <b>Socio-Economics</b>  |           |
| To support the maintenance of sustainable local economies for communities living near NDA sites and, where possible, contribute to regional economic growth   | 2022-2025 |
| <b>Public and Stakeholder Engagement</b>  |           |
| To build a better understanding of our mission among the public and our stakeholders and maintain their support, confidence and trust   | 2022-2025 |
| <b>International Relations</b>  |           |
| To be a world leader in facilitating international collaboration in nuclear decommissioning   | 2022-2025 |
| <b>Transport</b>  |           |
| To ensure the effective, safe and secure transportation of materials to enable the successful delivery of the NDA mission   | 2022-2025 |
| <b>Non-NDA Liabilities</b>  |           |
| To identify, assess and decide how to manage non-NDA liabilities, whether public or private sector, to deliver greater value for the UK, while ensuring the successful delivery of our mission remains our priority   | 2022-2025 |



# Sellafield Limited

Sellafield Ltd is an NDA subsidiary, responsible for operating and decommissioning Europe's largest and most complex nuclear site. This includes cleaning up nuclear facilities and safeguarding nuclear fuel, materials and waste.

## Important milestones

### 2022-2023

- Complete Magnox reprocessing and continued interim storage in FHP for any remnant fuel
- PFCS - First box of waste from early retrievals delivered to store
- Complete decommissioning and demolition of the upper diffuser section of the Windscale Pile Chimney Number 1

### 2023-2024

- Enhanced capacity to receive/ manage and interim store AGR spent fuel from EDF Energy, to support bulk defueling

### 2024-2025

- Enhanced / optimised sort and segregation of alpha waste

## Planned expenditure for 2022/23

**£2,345 million**

## Site in Cumbria

**276 hectares**

### Hectares dedesignated

**0 hectares**

All 276 hectares remain covered by the nuclear site licence.

## SITE PROGRESS (ACHIEVED AND EXPECTED)

|  |   |      |
|--|---|------|
|  | All Buildings Decommissioned or Relicensed  | TBD  |
|  | All Land Demonstrated as Suitable for Reuse | 2125 |
|  | All Land Dedesignated or Reused             | 2125 |

TBD is shown when the date for completing the strategic outcome is not sufficiently clear for a specific date to be given at this time.

| Key activities | Timescale | Strategic Outcome |
|----------------|-----------|-------------------|
|----------------|-----------|-------------------|

### Spent Fuels

All spent fuels discharged from the operating Advanced Gas-Cooled Reactor (AGR) power stations and defueling of all Magnox power stations reactors are sent to Sellafield for management. The receipt of AGR fuels will continue until the end of the AGR electricity programme, whilst all the Magnox fuel has now been received at Sellafield. The management of AGR fuel under contracts with EDF Energy provides a significant income stream to NDA.

#### Spent Magnox Fuel

|  |           |     |
|--|-----------|-----|
| First Generation Magnox Storage Pond<br>Complete the capability to export all fuel for interim storage | 2022-2023 | 2   |
| Complete Magnox reprocessing and continued interim storage in FHP for any remnant fuel                 | 2022-2023 | 3 4 |

#### Spent Oxide Fuel

|  |           |     |
|--|-----------|-----|
| Enhance capacity to receive/manage and interim store AGR spent fuel from EDF Energy, to support bulk defueling | 2023-2024 | 6 9 |
|--|-----------|-----|

#### Spent Exotic Fuel

|   |           |       |
|---|-----------|-------|
| Continue to receive Dounreay spent exotic fuel to be reprocessed or stored, and develop alternative capability for receipt and management of remaining spent exotic fuels from Dounreay | 2022-2025 | 12 14 |
|---|-----------|-------|

### Integrated Waste Management

The various activities across the site produce wastes in many forms. These require varying degrees of treatment and onward processing. The site continues to focus on safe, efficient management of these wastes, including: the conversion of Highly Active Liquor (HAL) into passively safe vitrified waste; the return of vitrified material overseas; and the management of on-site intermediate and low level wastes.

The areas of principal focus are the redundant Legacy Ponds and Silos facilities, made up of the Pile Fuel Storage Pond, Pile Fuel Cladding Silo, First Generation Magnox Storage Pond and Magnox Swarf Storage Silo. These facilities supported the development of the nuclear programme in the UK from the early 1950s. Subsequently, they supported electricity generation from the fleet of Magnox power stations. The programmes include the removal of nuclear fuel, sludge and solid material which require the provision of equipment to retrieve the various wastes and then treat and store them.

This process needs to take into account the role of integrated waste management in achieving hazard reduction and long-term safety, security and environmental protection requirements.

#### Low Level Waste

|   |           |    |
|---|-----------|----|
| Continue to generate savings and preserve capacity at the Low Level Waste Repository by enhancing capability to divert waste to LLWR and the supply chain | 2022-2025 | 27 |
|---|-----------|----|

#### Intermediate Level Waste

|  |                                     |                |
|--|-------------------------------------|----------------|
| Pile Fuel Storage Pond (PFSP)<br>• Progress supporting programme activities  | 2022-2024                           | 31             |
| First Generation Magnox Storage Pond (FGMSP)<br>• Support risk reduction from FGMSP through continued removal of fuel and waste from the facility                | 2023-2025                           | 31             |
| Magnox Swarf Storage Silo (MSSS)<br>• Commence retrievals from MSSS<br>• Continue retrievals from MSSS<br>• Progress the capability required for bulk retrievals | 2022-2023<br>2022-2025<br>2023-2024 | 31<br>31<br>31 |
| Pile Fuel Cladding Silo (PFCS)<br>• First box of waste from early retrievals delivered to store  | 2022-2023                           | 31             |
| Support the NDA's strategy by continuing the programmes to receive and treat waste materials from Harwell and AWE Aldermaston                                    | 2023-2024                           | 32             |
| Support future waste treatment through implementing the capability to actively demonstrate characterisation, size reduction and decommissioning                  | 2022-2025                           | 32             |
| Support risk reduction by developing additional capability for treatment of intermediate level liquid wastes and storage of by-products                          | 2023-2025                           | 32             |

#### High Level Waste

|  |           |    |
|--|-----------|----|
| Continue the programme to repatriate overseas-owned vitrified waste to its country of origin   | 2022-2025 | 38 |
| Support reprocessing plant decommissioning by determining the capability to process High Active Post Operational Clean Out of solids through the Vitrification Plant, and commence processing if capacity exists | 2023-2025 | 36 |

| Key activities  | Timescale | Strategic Outcome |
|---|-----------|-------------------|
| <b>Nuclear Materials</b>  |           |                   |
| Sellafield is the custodian of the majority of the UK's inventory of separated plutonium which is held in safe and secure storage.  |           |                   |
| <b>Plutonium</b>  |           |                   |
| Continue the safe and secure storage of plutonium by developing the capability to repack/retreat plutonium in line with UK policy   | 2022-2025 | 18 19             |
| <b>Uranics</b>  |           |                   |
| Support future decommissioning by implementing plans for consolidated storage of Sellafield uranics   | 2022-2025 | 22 24             |
| <b>Site Decommissioning and Remediation</b>   |           |                   |
| <b>Decommissioning and demolition</b>   |           |                   |
| Complete decommissioning and demolition of the upper diffuser section of the Windscale Pile Chimney Number 1  | 2022-2023 | 42 43             |
| Commence post operational clean-out (POCO) of Magnox Reprocessing Plant   | 2022-2023 | 42                |
| <b>Critical Enablers</b>  |           |                   |
| A number of key enabling activities require specific focus, ranging from infrastructure refurbishment or replacement projects, through to key change programmes which aim to improve operational delivery and efficiency on site. |           |                   |
| Continue the Sellafield transformation to support future business requirements including the development and embedding of a value-led culture   | 2022-2025 | -                 |
| Develop and embed the long-term partnership with the supply chain   | 2023-2024 | -                 |
| Progress the transformation of project delivery on site and continue to embed the Programme and Project Partnership   | 2022-2025 | -                 |
| Support small and medium enterprise organisations by increasing overall spend with them in line with the government growth agenda   | 2022-2025 | -                 |
| Continue to embed the Sellafield security enhancement programme   | 2022-2025 | -                 |
| Continue with improvements to the site utilities infrastructure   | 2022-2025 | -                 |
| Continue the programme to ensure the analytical services capability is available to support the mission   | 2022-2025 | -                 |
| Active participation in the Nuclear Sector Deal to help support HMG key deliverables  | 2023-2024 | -                 |
| Working to embed the capability to proactively protect, detect, respond and recover against current and evolving cyber threats  | 2022-2025 | -                 |
| Manage and deliver asset management and continuous improvement capability and performance to support mission delivery   | 2022-2025 | -                 |
| <b>Regulatory Engagement</b>  |           |                   |
| Ensure discharges are in line with UK discharge strategy  | 2022-2025 | -                 |
| Reduce environmental risk (including retrieval and treatment of legacy wastes, reduction of HAL stocks)   | 2022-2025 | -                 |



# Magnox Limited

Magnox is an NDA subsidiary, responsible for 12 nuclear sites across the UK: Berkeley, Bradwell, Chapelcross, Dungeness A, Harwell, Hinkley Point A, Hunterson A, Oldbury, Sizewell A, Trawsfynydd, Winfrith and Wylfa. Magnox also generates electricity at the Maentwrog hydroelectric plant.

Planned expenditure for 2022/23

**£515 million**

Following a review of the Magnox reactor decommissioning strategy (strategic outcome 42), the NDA has endorsed a site-specific approach to Magnox reactor decommissioning which will involve a mix of decommissioning strategies. For some sites this will result in their decommissioning being brought forward whilst for others a deferral strategy will be the chosen approach; over the last year Magnox has developed the business case for this fundamental change of strategy.

The intention is that the site-specific strategies will result in a rolling programme of activity as the Magnox fleet is decommissioned. This will maximise the opportunity for sharing any lessons learned, developing and implementing new technologies, and strengthening wider capability. The programme will collectively be geared towards reducing risk, reducing lifetime costs, and growing skills and knowledge to deliver benefits both nationally and to local communities.

The site-specific decommissioning strategies will be continually reviewed and optimised using the learning obtained from the sites being decommissioned. It is expected that the strategy for decommissioning Calder Hall (a former Magnox reactor on the Sellafield site) will also incorporate learning from the lead Magnox site, Trawsfynydd. When the site-specific plans and dates are confirmed they will be published on the NDA's website.

Continued focus on safety and risk reduction will remain the overriding priorities across all the sites.

| Key activities   | Timescale | Strategic Outcome |
|--|-----------|-------------------|
| <b>Site Decommissioning and Remediation</b>  |           |                   |
| <b>Decommissioning and demolition</b>  |           |                   |
| Continue estate decommissioning and demolition activities in line with individual site strategies  | 2022-2025 | 42 43             |
| Continue reactor decommissioning   | 2022-2025 | 43                |
| Continue to manage and remove asbestos   | 2022-2025 | 42                |
| Continue development of site specific strategies as part of a rolling programme of decommissioning   | 2022-2025 | 42                |
| <b>Dedesignate or Reuse</b>  |           |                   |
| Continue working with Regulators to ensure appropriately scaled management arrangements and permissioning for Interim States and Interim End States are determined and agreed              | 2022-2025 | 44 45             |
| Development of Interim State approaches, utilising revised management arrangements   | 2022-2025 | 44                |
| Monitoring of management and maintenance arrangements for sites in Care and Maintenance  | 2022-2025 | 44                |
| Progress land quality activities to support suitability for reuse  | 2022-2025 | 46                |
| Progress land dedesignation and release to support reuse   | 2022-2025 | 47                |
| Provision of support to nuclear new build  | 2022-2025 | 47                |
| <b>Nuclear Materials</b>   |           |                   |
| <b>Uranics</b>   |           |                   |
| Continue the programme for the transfer of nuclear materials including regulatory permissioning  | 2022-2025 | 22                |
| <b>Integrated Waste Management</b>   |           |                   |
| <b>Low Level Waste</b>   |           |                   |
| Delivery of the Magnox elements of the estate-wide low level waste management plan including diversion to alternative treatment including development of updated Integrated Waste Strategy | 2022-2025 | 26 27 28 29       |
| <b>Intermediate Level Waste</b>  |           |                   |
| Progress activities to retrieve, treat and store ILW   | 2022-2025 | 31 32 33          |
| Progress design and build of ILW retrieval plant   | 2022-2025 | 31                |
| Continue to pursue opportunities to consolidate ILW to interim stores  | 2022-2025 | 33                |
| <b>Critical Enablers</b>   |           |                   |
| Support Government in activities to deliver preparations for decommissioning the Advanced Gas-cooled Reactor fleet   | 2022-2025 | -                 |
| Prepare Magnox for the joining of Dounreay and each AGR as they reach fuel free state. Develop and deliver the joint programmes with DSRL and EDF  | 2022-2025 | -                 |
| Support small and medium enterprise organisations by increasing overall spend with them in line with the government growth agenda  | 2022-2025 | -                 |
| Continue enhancement of Cyber Security Capability and IT infrastructure  | 2022-2025 | -                 |
| Optimise Asset Management capability and performance to support mission delivery   | 2022-2025 | -                 |
| Progress development of workforce capability and skills for decommissioning in Magnox and the supply chain   | 2022-2025 | -                 |
| Develop and deliver to the Sustainability Agenda   | 2022-2025 | -                 |
| Identify and realise opportunities in Research Development and Innovation  | 2022-2025 | -                 |



# Berkeley



Site in Gloucestershire

## 27 hectares

Hectares dedesignated

## 11 hectares

16 hectares remain covered by the nuclear site licence.

### SITE PROGRESS (ACHIEVED AND EXPECTED)

|  |   |          |
|--|---|----------|
|  | Free from Spent Fuel                        | ACHIEVED |
|  | Free from Nuclear Materials                 | ACHIEVED |
|  | All Radioactive Waste Disposed              | TBD      |
|  | All Buildings Decommissioned or Relicensed  | TBD      |
|  | All Land Demonstrated as Suitable for Reuse | TBD      |
|  | All Land Dedesignated or Reused             | TBD      |

TBD is shown when the date for completing the strategic outcome is not sufficiently clear for a specific date to be given at this time.

### Key activities

### Timescale

### Strategic Outcome

#### Integrated Waste Management

##### Intermediate Level Waste

Continue to progress design and build of ILW retrieval plant

2022-2025

31

Continue to progress activities to retrieve, treat and store ILW wastes

2022-2025

31 32 33

#### Site Decommissioning and Remediation

##### Decommissioning and Demolition

Commence the deplant and demolition of the Caesium Removal Plant

2022-2025

42 43

Continue to progress the asbestos and plant removal from the Blower Houses

2022-2025

42 43

# Bradwell

in Care and Maintenance



Site in Essex

## 20 hectares

Hectares dedesignated

## 0 hectares

All 20 hectares remain covered by the nuclear site licence.

### SITE PROGRESS (ACHIEVED AND EXPECTED)

|  |   |          |
|--|---|----------|
|  | Free from Spent Fuel                        | ACHIEVED |
|  | Free from Nuclear Materials                 | ACHIEVED |
|  | All Radioactive Waste Disposed              | TBD      |
|  | All Buildings Decommissioned or Relicensed  | TBD      |
|  | All Land Demonstrated as Suitable for Reuse | TBD      |
|  | All Land Dedesignated or Reused             | TBD      |

TBD is shown when the date for completing the strategic outcome is not sufficiently clear for a specific date to be given at this time.

| Key activities  | Timescale | Strategic Outcome |
|---|-----------|-------------------|
| <b>Site Decommissioning and Remediation</b>                   |           |                   |
| <b>Dedesignate and Reuse</b>                                  |           |                   |
| Ongoing management of site during Care and Maintenance period | 2022-2025 | 44                |

# Chapelcross



Site in Dumfries and Galloway

## 96 hectares

Hectares dedesignated

## 0 hectares

All 96 hectares remain covered by the nuclear site licence.

### SITE PROGRESS (ACHIEVED AND EXPECTED)

|  |   |          |
|--|---|----------|
|  | Free from Spent Fuel                        | ACHIEVED |
|  | Free from Nuclear Materials                 | ACHIEVED |
|  | All Radioactive Waste Disposed              | TBD      |
|  | All Buildings Decommissioned or Relicensed  | TBD      |
|  | All Land Demonstrated as Suitable for Reuse | TBD      |
|  | All Land Dedesignated or Reused             | TBD      |

TBD is shown when the date for completing the strategic outcome is not sufficiently clear for a specific date to be given at this time.

| Key activities   | Timescale | Strategic Outcome |
|--|-----------|-------------------|
| <b>Integrated Waste Management</b>   |           |                   |
| <b>Intermediate Level Waste</b>  |           |                   |
| Continue to progress activities to retrieve, treat and store ILW wastes              | 2022-2025 | 31 32 33          |
| Continue to progress design and build of ILW retrieval plant                         | 2022-2025 | 31                |
| Complete design and build of ILW Encapsulation facility                              | 2022-2023 | 31 32             |
| <b>Site Decommissioning and Remediation</b>  |           |                   |
| <b>Decommissioning and Demolition</b>  |           |                   |
| Progress preparations for pond draining and stabilisation including waste retrievals | 2022-2025 | 42                |
| Prepare and execute land remediation of the Cooling Tower basins                     | 2022-2024 | 46                |
| Commence and progress Turbine Hall asbestos removal                                  | 2022-2025 | 42                |

# Dungeness A



Site in Kent





## 20 hectares

Hectares dedesignated

## 0 hectares

All 20 hectares remain covered by the nuclear site licence.

### SITE PROGRESS (ACHIEVED AND EXPECTED)

|   |   |          |
|---|---|----------|
|    | Free from Spent Fuel                        | ACHIEVED |
|    | Free from Nuclear Materials                 | ACHIEVED |
|    | All Radioactive Waste Disposed              | TBD      |
|   | All Buildings Decommissioned or Relicensed  | TBD      |
|  | All Land Demonstrated as Suitable for Reuse | TBD      |
|  | All Land Dedesignated or Reused             | TBD      |

TBD is shown when the date for completing the strategic outcome is not sufficiently clear for a specific date to be given at this time.

| Key activities   | Timescale | Strategic Outcome |
|--|-----------|-------------------|
| <b>Integrated Waste Management</b>   |           |                   |
| <b>Intermediate Level Waste</b>  |           |                   |
| Continue to progress activities to retrieve, treat and store ILW wastes        | 2022-2025 | 31 32 33          |
| Continue to progress design and build of ILW retrieval plant                   | 2022-2025 | 31                |
| Continue to progress activities supporting consolidated ILW storage            | 2022-2025 | 33                |
| <b>Site Decommissioning and Remediation</b>                                    |           |                   |
| <b>Decommissioning and Demolition</b>  |           |                   |
| Commence and progress decommissioning the Active Effluent Treatment facilities | 2022-2025 | 42                |
| Prepare and progress the demolition of the boilers and associated buildings    | 2022-2025 | 43                |

# Harwell



Site in Oxfordshire

## 107 hectares

Hectares dedesignated

## 23 hectares

84 hectares remain covered by the nuclear site licence.

### SITE PROGRESS (ACHIEVED AND EXPECTED)

|  |   |          |
|--|---|----------|
|  | Free from Spent Fuel                        | ACHIEVED |
|  | Free from Nuclear Materials                 | 2025     |
|  | All Radioactive Waste Disposed              | TBD      |
|  | All Buildings Decommissioned or Relicensed  | TBD      |
|  | All Land Demonstrated as Suitable for Reuse | TBD      |
|  | All Land Dedesignated or Reused             | TBD      |

TBD is shown when the date for completing the strategic outcome is not sufficiently clear for a specific date to be given at this time.

| Key activities  | Timescale | Strategic Outcome |
|---|-----------|-------------------|
| <b>Nuclear Materials</b>  |           |                   |
| <b>Uranics</b>  |           |                   |
| Continue the programme for the transfer of nuclear materials  | 2022-2025 | 22                |
| <b>Integrated Waste Management</b>  |           |                   |
| <b>Intermediate Level Waste</b>   |           |                   |
| Continue to progress activities to retrieve, treat and store ILW  | 2022-2025 | 31 32 33          |
| <b>Site Decommissioning and Remediation</b>   |           |                   |
| <b>Decommissioning and Demolition</b>   |           |                   |
| Continue preparations for decommissioning of the Radiochemistry Facility (B220)   | 2022-2025 | 42                |
| Continue decommissioning, demolition, land remediation, reinstatement and delicensing of the Liquid Effluent Treatment Plant (LETP) | 2022-2025 | 42 43 46          |
| Continue preparations for the decommissioning of the British Experimental Pile Zero reactor (BEPO)                                  | 2022-2025 | 42                |
| Continue preparations and planning for the decommissioning of the Active Waste Handling facility (B459)                             | 2022-2025 | 42                |
| <b>Dedesignate or Reuse</b>   |           |                   |
| Continue incremental release of land to the Harwell campus through targeted demolitions, remediation and clearance of land tracts   | 2022-2025 | 42 43 47          |

# Hinkley Point A



Site in Somerset

## 19 hectares

Hectares dedesignated

## 0 hectares

All 19 hectares remain covered by the nuclear site licence.

### SITE PROGRESS (ACHIEVED AND EXPECTED)

|  |   |          |
|--|---|----------|
|  | Free from Spent Fuel                        | ACHIEVED |
|  | Free from Nuclear Materials                 | ACHIEVED |
|  | All Radioactive Waste Disposed              | TBD      |
|  | All Buildings Decommissioned or Relicensed  | TBD      |
|  | All Land Demonstrated as Suitable for Reuse | TBD      |
|  | All Land Dedesignated or Reused             | TBD      |

TBD is shown when the date for completing the strategic outcome is not sufficiently clear for a specific date to be given at this time.

| Key activities   | Timescale | Strategic Outcome |
|--|-----------|-------------------|
| <b>Integrated Waste Management</b>                                       |           |                   |
| <b>Intermediate Level Waste</b>  |           |                   |
| Continue to progress activities to retrieve, treat and store ILW         | 2022-2025 | 31 32 33          |
| Continue to progress design and build of ILW retrieval plant             | 2022-2025 | 31                |
| Complete design and build of ILW Encapsulation facility                  | 2022-2023 | 31 32             |
| <b>Site Decommissioning and Remediation</b>                              |           |                   |
| <b>Decommissioning and Demolition</b>                                    |           |                   |
| Continue and complete asbestos removal from the Reactor Building         | 2022-2024 | 42                |
| Continue to progress the de-planting of the Reactor Building             | 2022-2025 | 42                |
| Commence the decommissioning of the Active Effluent Treatment facilities | 2022-2025 | 42                |

# Hunterston A



Site in Ayrshire







## 15 hectares

Hectares dedesignated

## 0 hectares

All 15 hectares remain covered by the nuclear site licence.

### SITE PROGRESS (ACHIEVED AND EXPECTED)

|   |   |          |
|---|---|----------|
|    | Free from Spent Fuel                        | ACHIEVED |
|    | Free from Nuclear Materials                 | ACHIEVED |
|    | All Radioactive Waste Disposed              | TBD      |
|   | All Buildings Decommissioned or Relicensed  | TBD      |
|  | All Land Demonstrated as Suitable for Reuse | TBD      |
|  | All Land Dedesignated or Reused             | TBD      |

TBD is shown when the date for completing the strategic outcome is not sufficiently clear for a specific date to be given at this time.

| Key activities   | Timescale | Strategic Outcome |
|--|-----------|-------------------|
| <b>Integrated Waste Management</b>                                       |           |                   |
| <b>Intermediate Level Waste</b>  |           |                   |
| Continue to progress activities to retrieve, treat and store ILW         | 2022-2025 | 31 32 33          |
| Continue to progress design and build of ILW retrieval plant             | 2022-2025 | 31                |
| Commissioning of the solid ILW encapsulation plant                       | 2022-2025 | 32                |
| <b>Site Decommissioning and Remediation</b>                              |           |                   |
| <b>Decommissioning and Demolition</b>                                    |           |                   |
| Continue the decommissioning of the Active Effluent Treatment facilities | 2022-2025 | 42                |
| Continue to progress the deplanting of the Reactor building              | 2022-2025 | 42                |
| Continue to progress the deplanting of the Cooling Pond overbuilding     | 2022-2025 | 42                |

# Oldbury



Site in South Gloucestershire




## 47 hectares

Hectares dedesignated

## 32 hectares

15 hectares remain covered by the nuclear site licence.

### SITE PROGRESS (ACHIEVED AND EXPECTED)

|   |   |          |
|---|---|----------|
|    | Free from Spent Fuel                        | ACHIEVED |
|    | Free from Nuclear Materials                 | ACHIEVED |
|    | All Radioactive Waste Disposed              | TBD      |
|   | All Buildings Decommissioned or Relicensed  | TBD      |
|  | All Land Demonstrated as Suitable for Reuse | TBD      |
|  | All Land Dedesignated or Reused             | TBD      |

TBD is shown when the date for completing the strategic outcome is not sufficiently clear for a specific date to be given at this time.

| Key activities   | Timescale | Strategic Outcome |
|--|-----------|-------------------|
| <b>Integrated Waste Management</b>   |           |                   |
| <b>Intermediate Level Waste</b>  |           |                   |
| Continue to progress activities supporting consolidated ILW storage                    | 2022-2025 | 33                |
| Commence the design and build of ILW retrieval plant                                   | 2022-2025 | 31                |
| Continue to progress activities to retrieve, treat and store ILW (at Berkeley)         | 2022-2025 | 31 32 33          |
| <b>Site Decommissioning and Remediation</b>  |           |                   |
| <b>Decommissioning and Demolition</b>  |           |                   |
| Continue to progress the decommissioning of the Active Effluent Treatment facilities   | 2022-2025 | 42                |
| Commence and progress the asbestos removal, deplant and demolition of the Turbine Hall | 2022-2025 | 42                |
| Commence the asbestos removal from the Reactor Building                                | 2022-2025 | 42                |



# Sizewell A



Site in East Suffolk







## 14 hectares

Hectares dedesignated

## 0 hectares

All 14 hectares remain covered by the nuclear site licence.

### SITE PROGRESS (ACHIEVED AND EXPECTED)

|   |   |          |
|---|---|----------|
|    | Free from Spent Fuel                        | ACHIEVED |
|    | Free from Nuclear Materials                 | ACHIEVED |
|    | All Radioactive Waste Disposed              | TBD      |
|   | All Buildings Decommissioned or Relicensed  | TBD      |
|  | All Land Demonstrated as Suitable for Reuse | TBD      |
|  | All Land Dedesignated or Reused             | TBD      |

TBD is shown when the date for completing the strategic outcome is not sufficiently clear for a specific date to be given at this time.

| Key activities   | Timescale | Strategic Outcome |
|--|-----------|-------------------|
| <b>Integrated Waste Management</b>   |           |                   |
| <b>Intermediate Level Waste</b>  |           |                   |
| Continue to progress activities to support consolidation of ILW storage                | 2022-2025 | 33                |
| Commence design and build of ILW retrieval plant                                       | 2022-2025 | 31                |
| <b>Site Decommissioning and Remediation</b>  |           |                   |
| <b>Decommissioning and Demolition</b>  |           |                   |
| Commence and progress the decommissioning of the Active Effluent Treatment facilities  | 2022-2025 | 42                |
| Progress and complete the asbestos removal, deplant and demolition of the Turbine Hall | 2022-2025 | 42                |
| Commence and progress the asbestos removal from the Boiler Houses                      | 2022-2025 | 42                |

# Trawsfynydd

Our lead and learn site for rolling decommissioning



Site in North Wales







## 15 hectares

Hectares dedesignated

## 0 hectares

All 15 hectares remain covered by the nuclear site licence.

### SITE PROGRESS (ACHIEVED AND EXPECTED)

|   |   |          |
|---|---|----------|
|    | Free from Spent Fuel                        | ACHIEVED |
|    | Free from Nuclear Materials                 | ACHIEVED |
|    | All Radioactive Waste Disposed              | TBD      |
|   | All Buildings Decommissioned or Relicensed  | TBD      |
|  | All Land Demonstrated as Suitable for Reuse | TBD      |
|  | All Land Dedesignated or Reused             | TBD      |

TBD is shown when the date for completing the strategic outcome is not sufficiently clear for a specific date to be given at this time.

| Key activities  | Timescale | Strategic Outcome |
|---|-----------|-------------------|
| <b>Integrated Waste Management</b>  |           |                   |
| <b>Intermediate Level Waste</b>   |           |                   |
| Continue and complete activities to retrieve, treat and store ILW                 | 2022-2025 | 31 32 33          |
| <b>Site Decommissioning and Remediation</b>                                       |           |                   |
| <b>Decommissioning and Demolition</b>   |           |                   |
| Continue and complete Reactor Height Reduction enabling activities                | 2022-2023 | 42                |
| Commence, prepare, and progress Reactor Building Height Reduction                 | 2022-2025 | 43                |
| Continue deplanting, decommissioning and demolition of the Ponds complex facility | 2022-2025 | 42                |

# Winfrith



Site in Dorset






## 81 hectares

Hectares dedesignated

## 10 hectares

71 hectares remain covered by the nuclear site licence.

### SITE PROGRESS (ACHIEVED AND EXPECTED)

|   |   |          |
|---|---|----------|
|    | Free from Spent Fuel                        | ACHIEVED |
|    | Free from Nuclear Materials                 | ACHIEVED |
|    | All Radioactive Waste Disposed              | TBD      |
|   | All Buildings Decommissioned or Relicensed  | TBD      |
|  | All Land Demonstrated as Suitable for Reuse | TBD      |
|  | All Land Dedesignated or Reused             | TBD      |

TBD is shown when the date for completing the strategic outcome is not sufficiently clear for a specific date to be given at this time.

#### Key activities

#### Timescale

#### Strategic Outcome

#### Integrated Waste Management

##### Low Level Waste

Complete shipments of LLW (TRS) drums to LLWR

2022-2024

28

#### Site Decommissioning and Remediation

##### Decommissioning and Demolition

Continue DRAGON reactor decommissioning, including the completion of the construction and installation of the Core Segmentation equipment

2022-2025

42

Continue SGHWR decommissioning, including the completion of the construction and installation of the Core Segmentation equipment

2022-2025

42

Commence and progress the removal of the discharge pipelines

2022-2025

42

Continue land remediation activities and end state development

2022-2025

46

# Wylfa



Site in Anglesey







## 21 hectares

Hectares dedesignated

## 0 hectares

All 21 hectares remain covered by the nuclear site licence.

### SITE PROGRESS (ACHIEVED AND EXPECTED)

|   |   |          |
|---|---|----------|
|    | Free from Spent Fuel                        | ACHIEVED |
|    | Free from Nuclear Materials                 | ACHIEVED |
|    | All Radioactive Waste Disposed              | TBD      |
|   | All Buildings Decommissioned or Relicensed  | TBD      |
|  | All Land Demonstrated as Suitable for Reuse | TBD      |
|  | All Land Dedesignated or Reused             | TBD      |

TBD is shown when the date for completing the strategic outcome is not sufficiently clear for a specific date to be given at this time.

| Key activities   | Timescale | Strategic Outcome |
|--|-----------|-------------------|
| <b>Integrated Waste Management</b>   |           |                   |
| <b>Intermediate Level Waste</b>  |           |                   |
| Continue to progress activities to retrieve, treat and store ILW                     | 2022-2025 | 31 32 33          |
| Continue to progress design and build of ILW retrieval plant                         | 2022-2025 | 31                |
| <b>Site Decommissioning and Remediation</b>  |           |                   |
| <b>Decommissioning and Demolition</b>  |           |                   |
| Continue and complete asbestos removal from the De-aerator floor of the Turbine Hall | 2022-2023 | 42                |
| Commence and progress asbestos removal from the Reactor Building                     | 2023-2025 | 42                |
| Continue and complete the installation of a replacement Electrical Overlay scheme    | 2022-2024 | 42                |



# Dounreay Site Restoration Limited

Dounreay Site Restoration Ltd (DSRL) is responsible for decommissioning and cleaning up the Dounreay site in the north of Scotland. It also operates a Low Level Waste (LLW) disposal facility to deal with waste from the site. The organisation became a wholly owned subsidiary of the NDA on the 1st April 2021.

## Important milestones

The activities below are extracted from the current site Lifetime Plan. A revised Lifetime Plan is in development following the transition to an NDA subsidiary, and the dates shown are therefore subject to change.

### 2025

- All fuel in long-term storage or shipped off site.
- Dounreay Fast Reactor (DFR) dismantled

### 2027

- Prototype Fast Reactor (PFR) dismantled

### 2028

- Shaft and silo encapsulation complete

### 2031

- Site clearance and environmental restoration phase 3 complete

### 2032-33

- Interim end state achieved

## Planned expenditure for 2022/23

# £205 million

## Site in Northern Scotland

# 60 hectares

(plus 12 hectares designated for LLW facility) in Caithness.

## Hectares Dededesignated

# 0 hectares

60 hectares remain covered by the nuclear site licence, the 12 for the LLW facility are designated but not licensed.

## SITE PROGRESS (ACHIEVED AND EXPECTED)

|  |   |      |
|--|---|------|
|  | Defueled                                    | 2025 |
|  | Free from Nuclear Materials                 | TBD  |
|  | All Radioactive Waste Disposed              | TBD  |
|  | All Buildings Decommissioned or Relicensed  | TBD  |
|  | All Land Demonstrated as Suitable for Reuse | TBD  |
|  | All Land Dededesignated or Reused           | TBD  |

TBD is shown when the date for completing the strategic outcome is not sufficiently clear for a specific date to be given at this time.

| Key activities  | Timescale | Strategic Outcome |
|---|-----------|-------------------|
| <b>Spent Fuel</b>   |           |                   |
| <b>Spent Exotic Fuel</b>  |           |                   |
| Complete delivery of all in reactor DFR Breeder Fuel to Sellafield  | 2022-2024 | 12                |
| Complete delivery of all fuels from DFR   | 2022-2024 | 12                |
| <b>Integrated Waste Management</b>  |           |                   |
| <b>Low Level Waste</b>  |           |                   |
| Continue transfer of LLW to LLW facility  | 2022-2025 | 27                |
| Complete design and build of D3110 Waste Treatment Plant  | 2023-2024 | 28                |
| <b>Intermediate Level Waste</b>   |           |                   |
| Complete construction of Dounreay Cementation Plant (DCP) Store Extension Construction  | 2022-2023 | 32                |
| PFR Raffinate Immobilisation Complete   | 2023-2024 | 32                |
| <b>Site Decommissioning and Remediation</b>   |           |                   |
| <b>Decommissioning and Demolition</b>   |           |                   |
| Dounreay Material Test Reactor Building Complex Decontamination Complete  | 2023-2024 | 42                |
| PFR - Complete Reactor Vessel Residual Sodium Treatment Operations - Turn Reactor Vessel atmosphere from nitrogen to air          | 2022-2023 | 42                |
| Dounreay Material Test Reactor Structures demolished  | 2023-2024 | 43                |
| <b>Dedesignate or Reuse</b>   |           |                   |
| NDA and Regulatory permissioning in support of the Interim End State definition and arrangements for Dounreay                     | 2022-2025 | 44                |
| <b>Critical Enablers</b>  |           |                   |
| Support small and medium enterprise organisations by increasing overall spend with them in line with the government growth agenda | 2022-2025 | -                 |



# LLWR Limited

LLW Repository Ltd is now a wholly owned subsidiary of the NDA, following its transition from ownership by a Parent Body Organisation. This change was successfully completed in July 2021.

LLWR manages and operates in the UK's low level waste repository in west Cumbria, providing a safe, permanent disposal for a range of radioactive wastes. It's also responsible for delivering the UK's national low level waste programme and associated waste management services.

In January 2022, the NDA announced the launch of Nuclear Waste Services. This new organisation brings together the long-established expertise of site operator LLW Repository Ltd, Geological Disposal Facility (GDF) developer Radioactive Waste Management (RWM) Ltd and the NDA's Integrated Waste Management Programme. The legal entities of LLWR and RWM will endure, although the intention is to move to a single legal entity operating under the Nuclear Waste Services brand at an appropriate point in the future.

## Important milestones

### 2022

- Formation of Nuclear Waste Services

### 2023

- Repository Development Programme (RDP) Tranche 1 design complete

### 2024

- RDP commence main construction

### 2026

- Environmental Safety Case (ESC) submitted to the Environment Agency

### 2027

- RDP Vault 8 closure

### 2030

- RDP final capping of Vault 8

## Planned expenditure for 2022/23

# £85 million

## Site in Cumbria


# 100 hectares

## Hectares Dededesignated

# 0 hectares

All 100 hectares remain covered by the nuclear site licence.

## SITE PROGRESS (ACHIEVED AND EXPECTED)

|   |   |      |
|---|---|------|
|  | All Buildings Decommissioned or Relicensed  | TBD  |
|  | All Land Demonstrated as Suitable for Reuse | TBD  |
|  | All Land Dededesignated or Reused           | 2135 |

TBD is shown when the date for completing the strategic outcome is not sufficiently clear for a specific date to be given at this time.

| Key activities   | Timescale | Strategic Outcome |
|--|-----------|-------------------|
| <b>Integrated Waste Management</b>   |           |                   |
| <b>Low Level Waste</b>   |           |                   |
| Deliver the National LLW Programme to optimise LLW Strategy implementation. Work with consigning SLCs to improve waste forecast and inventory and continue segregated waste, treatment and disposal services | 2022-2025 | 26 27 28 29       |
| <b>Intermediate Level Waste</b>  |           |                   |
| Work with NDA to support innovation in approaches to integrated waste management   | 2022-2025 | 32 33 34          |
| Type B Packaging capability to support NDA and MOD customers   | 2022-2025 | 33                |
| <b>Site Decommissioning and Remediation</b>  |           |                   |
| Site End State Gate B paper delivered  | 2022-2025 | 44 45 47          |
| <b>New Build and Operations</b>  |           |                   |
| Enabling works for phased construction of the final cap for trenches 1 to 7 and Vault 8  | 2022-2025 | 41                |
| <b>Critical Enablers</b>   |           |                   |
| Support hazard reduction across the NDA group  | 2022-2025 | -                 |
| Deliver the LLW packaging and transport services   | 2022-2025 | -                 |
| Manage and operate LLWR safely to provide an effective UK disposal service   | 2022-2025 | -                 |
| Consider options to further optimise operations at the LLWR  | 2022-2025 | -                 |
| Continue to pursue overall cost savings in delivery of the Lifetime Plan   | 2022-2025 | -                 |
| Support small and medium enterprise organisations by increasing overall spend with them in line with the government growth agenda  | 2022-2025 | -                 |
| Active participation in the Nuclear Sector Deal and the North West Nuclear Arc to help achieve HMG key deliverables  | 2022-2025 | -                 |
| Manage the existing LLWR Management and Operations contract through to completion and transition to new ownership arrangements   | 2022-2025 | -                 |
| Deliver the LLWR Transformation Programme and actively support the development of One NDA  | 2022-2025 | -                 |
| Mature and deliver asset management and continuous improvement capability and performance to support mission delivery  | 2022-2025 | -                 |
| Transition successfully into Nuclear Waste Services and maintain momentum of Integrated Waste Management programme   | 2022-2025 | -                 |
| <b>Regulatory Engagement</b>   |           |                   |
| Contribute to sustainability performance under the Greening Government Commitments (GGC)   | 2022-2025 | -                 |



# Radioactive Waste Management Limited

Radioactive Waste Management Limited (RWM) is an NDA subsidiary, responsible for providing a range of waste management services including delivering a geological disposal facility in England and Wales. This includes finding a suitable site with a willing community to host this permanent and safe solution for managing radioactive waste.

## Important milestones

### 2026

- Recommendation to the Secretary of State on sites to take forward for Site Characterisation

### 2030

- Start first round of deep borehole drilling

In January 2022, the NDA announced the launch of Nuclear Waste Services. This new organisation brings together the long-established expertise of site operator LLW Repository Ltd, Geological Disposal Facility (GDF) developer Radioactive Waste Management (RWM) Ltd and the NDA's Integrated Waste Management Programme. The legal entities of LLWR and RWM will endure, although the intention is to move to a single legal entity operating under the Nuclear Waste Services brand at an appropriate point in the future.

## Planned expenditure for 2022/23

# £92 million

| Key activities  | Timescale | Strategic Outcome |
|---|-----------|-------------------|
| <b>Integrated Waste Management - Intermediate and High Level Waste</b>  |           |                   |
| Implement government policy on geological disposal of higher activity waste to deliver a suitable site and willing community  | 2022-2025 | 34 39             |
| Through activity and enabling partners - Work proactively with waste producers, planning for and delivering waste management solutions  | 2022-2025 | 34 39             |
| Through activity and enabling partners - Deliver a robust technical programme, support the GDF programme and waste management   | 2022-2025 | 34 39             |
| <b>Critical Enablers</b>  |           |                   |
| Ensure that we have willing communities – working closely with local community and local authorities to develop a detailed community vision once Community Partnerships are formed            | 2022-2025 | -                 |
| Ensure that we have suitable sites – working closely with our supply chain to design studies for initial safety analyses, and environmental and economic assessments to establish suitability | 2022-2025 | -                 |
| Empower our people with clear direction, the right resource and outstanding support so we achieve our mission and our transition  | 2022-2025 | -                 |
| Transition successfully into Nuclear Waste Services and maintain momentum of GDF programme  | 2022-2025 | -                 |



# Nuclear Transport Solutions

Established in 2021, Nuclear Transport Solutions (NTS) is a centre of excellence and a strategic UK capability for the transport of radioactive and other critical materials.

Delivering our mission relies on being able to transport radioactive materials and other freight safely and sustainably. NTS supports this by transporting spent nuclear fuel from UK power stations to Sellafield, returning reprocessed products to customers overseas, and providing packaging and licensing solutions to the NDA group.

It also generates revenue through commercial opportunities in the UK and overseas – offsetting the cost of delivering decommissioning and clean-up work at the UK’s oldest nuclear sites.

NTS operates Direct Rail Services (DRS) and Pacific Nuclear Transport Limited (PNTL) to deliver rail and shipping services for customers, building on decades of experience of providing safe, secure and reliable transport solutions.

| Key activities   | Timescale | Strategic Outcome |
|--|-----------|-------------------|
| <b>Spent Fuels - Spent Oxide Fuel</b>  |           |                   |
| Support AGR fuel movements by rail for EDF from stations to Sellafield, including preparations for the AGR defueling programme   | 2022-2025 | 6                 |
| <b>Nuclear Materials - Plutonium and Uranics</b>   |           |                   |
| Support national nuclear material rail movements for Harwell, Winfrith and DSRL  | 2022-2025 | 17 22             |
| <b>Integrated Waste Management - High Level Waste</b>  |           |                   |
| Continue to deliver important international transports of vitrified High Level Waste (HLW) and conditioned Intermediate Level Waste (ILW)                                      | 2022-2025 | 36 37             |
| <b>Critical Enablers</b>   |           |                   |
| Establish and implement an Integrated Transport Programme to identify opportunities and realise benefits from better coordination and optimisation of NDA group transports     | 2022-2025 | -                 |
| Seek opportunities for new business within nuclear shipping, rail, packaging and design by providing transport enabling solutions to UK and international markets              | 2022-2025 | -                 |
| Undertake appropriate non-nuclear business to maintain and enhance the skills and capabilities required to support the core nuclear mission                                    | 2022-2025 | -                 |
| Maintain and operate a fleet of specialist transport assets which meet the highest standards of quality, safety and security in order to support NDA operations                | 2022-2025 | -                 |
| Attract and retain the necessary skills, capability and diversity of talent to deliver business in a safe, secure and reliable manner  | 2022-2025 | -                 |
| Support the discharge of NDA obligations with respect to MOD nuclear rail transportation   | 2022-2025 | -                 |
| Continue to deliver NDA's contractual obligations for transport of mixed oxide (MOX) fuel from France to Japan   | 2022-2025 | -                 |
| Undertake a series of transformation activities that bring transport capabilities together into a single division that is efficient, commercially competitive and self-funding | 2022-2025 | -                 |
| Develop and implement a carbon reduction plan to successfully achieve the net zero carbon emissions aspirations  | 2022-2025 | -                 |

# NDA Archives Limited



NDA Archives is an NDA subsidiary, responsible for the Nucleus (the Nuclear and Caithness Archives). The facility is operated by a commercial partner and provides long-term records management and archiving services for the NDA group.

| Key activities  | Timescale |
|---|-----------|
| <b>Critical Enablers</b>  |           |
| Continuing development of the Hub and Spokes delivery model – centralised inventory and management with dispersed, off-site storage where appropriate               | 2022-2023 |
| Re-competition of the commercial partner contract   | 2022-2023 |
| Capacity management planning at Nucleus   | 2022-2024 |
| Working with interested third parties to continue the development and implementation of the NDA's heritage strategy   | 2022-2025 |
| Magnox collection sift completed and ready for accession  | 2023-2024 |
| Development of accommodation options, including strategies/proposals for dealing with increased capacity needs at Nucleus and the Material and Samples requirements | 2023-2025 |
| Sellafield offsite collection sift completed and ready for accession  | 2024-2025 |

# NDA Properties Limited



NDA Properties Ltd is an NDA subsidiary, holding and managing the majority of the non-nuclear property assets within the NDA group.

| Key activities   | Timescale |
|--|-----------|
| <b>Critical Enablers</b>   |           |
| Effective and efficient management and assurance of retained landholding consisting of 1,203 hectares across 92 properties                                       | 2022-2025 |
| Review and deliver progressive environmental stewardship across the portfolio estate   | 2022-2025 |
| Proactively dispose/release surplus assets no longer required by the NDA group or wider parts of government, including those that have high socio-economic value | 2022-2025 |
| To engage and collaborate with NDA group and stakeholders to target Carbon Zero objectives   | 2022-2025 |

# Rutherford Indemnity Limited

Rutherford Indemnity Ltd provides insurance cover for the NDA group. It has a particular focus on nuclear liability related and property damage cover. The company is a wholly-owned subsidiary, managed for the NDA by Marsh Management Services Guernsey Limited, and has no direct employees.

| Key activities  | Timescale |
|---|-----------|
| <b>Critical Enablers</b>  |           |
| Provide optimal insurance coverage to the NDA to support its NDA group-wide insurance programme, exploiting opportunities to reduce overall cost of insurance risk and offering insurance solutions to meet the evolving needs of the group | 2022-2025 |
| Continue to deliver the target return on the investment portfolio, protecting Rutherford's ability to offer insurance on a cost-effective basis, maintaining liquidity in order to be able to respond promptly to a major loss              | 2022-2025 |
| Continue to use a prudent proportion of Rutherford's assets to support infrastructure investment within the NDA group   | 2022-2025 |
| Maintain capability for payment of dividends to the shareholder   | 2022-2025 |
| Participate in joint tender with NDA for insurance broker services that support the group insurance strategy and the Rutherford reinsurance placement   | 2022-2023 |

## Energus

## ENERGUS.

Energus is an NDA subsidiary offering conference and events facilities and a range of training, education and business support services geared to providing and enhancing skills within both the local and national nuclear workforce.

| Key activities   | Timescale |
|--|-----------|
| <b>Critical Enablers</b>   |           |
| Continue to work closely with the NDA and stakeholders across the nuclear sector to upskill and develop the workforce of today and tomorrow  | 2022-2025 |
| Continue to manage and facilitate a range of training opportunities for the NDA group and wider nuclear sector; including nuclear graduates and a range of functional programmes for both graduates and apprentices including: cyber security, Finance Audit and Risk, Radiation Protection, Commercial, business and civil engineering as well as other bespoke programmes to support the NDA People Strategy and the Nuclear Sector Deal | 2022-2025 |
| Continue to work in partnership with the National Cyber Security Centre (NCSC) and NDA Cyber Security Resilience (CSR) to deliver a pipeline of cyber security young talent into the sector. Deliver CyberFirst and be the venue of choice for Cyber Security training in the North West   | 2022-2025 |
| Provide a range of managed services within the people and skills arena including recruitment programmes, work experience and STEM engagement – supporting the NDA commitment to ED&I and achieving greater levels of social value and socio economic benefit to our communities and broader stakeholders   | 2022-2025 |
| Provide a high quality training environment for all Sellafield apprentices, working with a range of education partners and suppliers   | 2022-2025 |
| Continue to be a Cumbrian venue of choice for the NDA group's events, conferences and delivery of training and education   | 2022-2025 |

# Springfields



- Planned expenditure for 2022/23 - £30 million
- 81 hectare site in Lancashire.
- All 81 hectares remain covered by the nuclear site licence.

Owned by Westinghouse Electric UK Holdings Limited  
Springfields is a nuclear fuel manufacturing site and is located near Preston in Lancashire. The site is operated by Springfields Fuels Limited (SFL) and is used to

manufacture a range of fuel products for UK and international customers, the processing of historic uranic residues and decommissioning of redundant facilities.

From April 2010, the NDA permanently transferred ownership of the company to Westinghouse Electric including the freedom to invest for the future under the terms of a new 150-year lease. SFL is contracted to provide decommissioning and clean-up services to the NDA to address historic liabilities.

| Key activities  | Timescale | Strategic Outcome |
|---|-----------|-------------------|
| <b>Site Decommissioning and Remediation</b>                                       |           |                   |
| <b>Decommissioning and Demolition</b>   |           |                   |
| Complete post operational clean out of the Residues Recovery Plant                | 2022-2023 | 41                |
| Continue decommissioning of the Magnox Island                                     | 2022-2025 | 42 43             |
| <b>Nuclear Materials</b>  |           |                   |
| <b>Uranics</b>  |           |                   |
| Continue to appropriately manage, care and maintain NDA stock of uranic materials | 2022-2025 | 23 25             |

# Capenhurst



- Planned expenditure for 2022/23 - £31 million
- 30 hectare site in Cheshire.
- 17 hectares have been dedesignated.
- Modification of Designating Direction signed by the Minister in May 2010 and July 2012.
- Remaining 13 hectares are covered by the nuclear site licence.

Owned by URENCO  
The NDA Capenhurst site is located near Ellesmere Port in Cheshire.

In 2012, the site was transferred to URENCO, owners of the adjacent licensed site, and was amalgamated into a single nuclear licensed site. As part of this transfer, URENCO established Urenco Nuclear Stewardship (UNS), formerly known as Capenhurst Nuclear Services, to provide responsible management of uranic materials and carry out remediation work on behalf of the NDA.

UNS manages a large proportion of the NDA's uranic inventory and also provides broader decommissioning and demolition works for redundant facilities, in order to reduce liability and optimise space utilisation on site.

| Key activities   | Timescale | Strategic Outcome |
|--|-----------|-------------------|
| <b>Site Decommissioning and Remediation</b>  |           |                   |
| <b>Decommissioning and Demolition</b>  |           |                   |
| Continue decommissioning and demolition of key facilities  | 2022-2024 | 41 42 43 47       |
| <b>Nuclear Materials</b>   |           |                   |
| <b>Uranics</b>   |           |                   |
| Continue the safe storage and management of uranic materials, including uranium hexafluoride tails prior to processing through the Tails Management Facility | 2022-2025 | 22 23 24 25       |

## STRATEGIC OUTCOMES

2020 2021 2022 2023 2024 2025 2026 2027 2028 2029 2030 2031 2032 2033 2034 2035 2036 2037 2038 2039 2040

### Spent Fuels

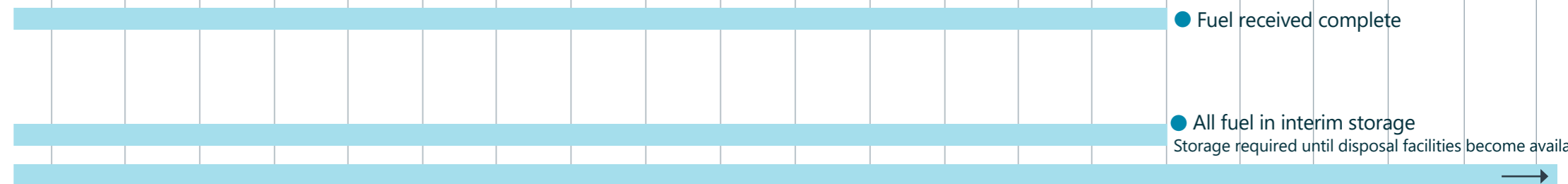
#### SPENT MAGNOX FUEL

- ① All sites defueled - **ACHIEVED**
- ② All legacy Magnox fuel retrieved
- ③ All Magnox fuel reprocessing completed
- ④ All remaining Magnox fuel in interim storage
- ⑤ All remaining Magnox fuel disposed



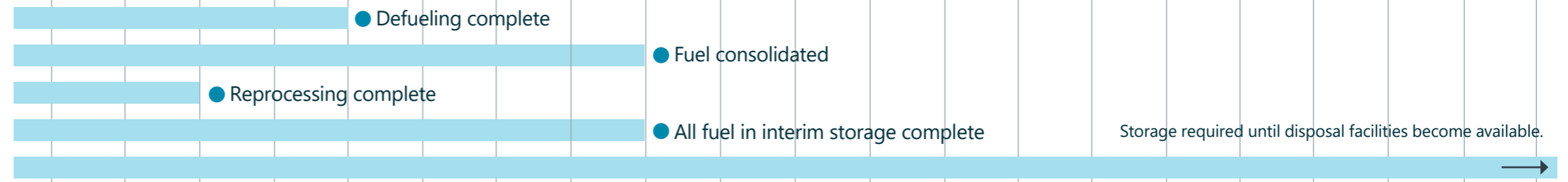
#### SPENT OXIDE FUEL

- ⑥ All EDFE oxide fuel received
- ⑦ All legacy oxide fuel retrieved - **ACHIEVED**
- ⑧ All oxide fuel reprocessing completed - **ACHIEVED**
- ⑨ All remaining oxide fuel in interim storage
- ⑩ All remaining oxide fuel disposed



#### SPENT EXOTIC FUEL

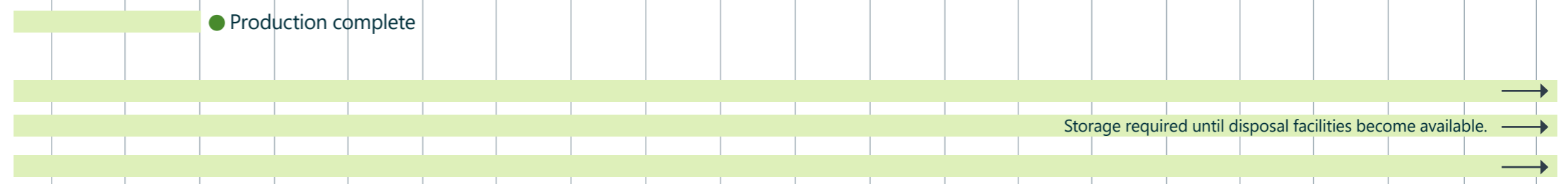
- ⑪ All exotic fuel defueled
- ⑫ All exotic fuel consolidated
- ⑬ All exotic fuel reprocessing completed
- ⑭ All remaining exotic fuel in interim storage
- ⑮ All remaining exotic fuel disposed



### Nuclear Materials

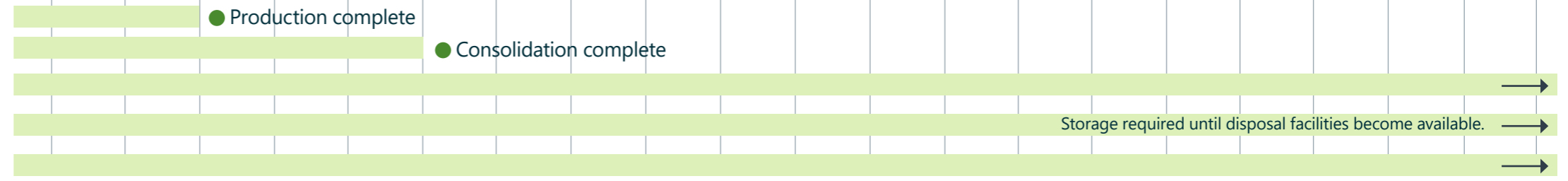
#### PLUTONIUM

- ⑯ All plutonium produced
- ⑰ All plutonium consolidated - **ACHIEVED**
- ⑱ A: All plutonium packed in long term storage  
B: All cans not suitable for extended storage repackaged
- ⑲ All plutonium in modern interim storage
- ⑳ All plutonium reused or disposed



#### URANICS

- ㉑ All uranium produced
- ㉒ All uranium consolidated
- ㉓ All uranium treated
- ㉔ All uranium in interim storage
- ㉕ All uranium reused or disposed



**KEY**

- ① Strategic Outcome already completed
- Significant milestone
- Strategic Outcome will be achieved post 2040

## STRATEGIC OUTCOMES

2020 2021 2022 2023 2024 2025 2026 2027 2028 2029 2030 2031 2032 2033 2034 2035 2036 2037 2038 2039 2040

### Integrated Waste Management

#### LOW LEVEL WASTE

- 26 All LLW produced
- 27 All LLW treated - to enable diversion or reuse
- 28 All waste suitable for disposal in NDA facilities
- 29 All waste suitable for permitted landfill disposed

#### INTERMEDIATE LEVEL WASTE

- 30 All ILW produced
- 31 All legacy waste retrieved
- 32 All ILW treated
- 33 All ILW in interim storage
- 34 All ILW disposed

#### HIGH LEVEL WASTE

- 35 All HLW produced
- 36 All HLW treated
- 37 All HLW in interim storage
- 38 All overseas HLW exported
- 39 All HLW disposed

- Production complete
- Treatment complete
- All fuel in interim storage complete

Storage required until disposal facilities become available.

Storage required until disposal facilities become available.

Waste disposal commences.

### Site Decommissioning and Remediation

#### NEW BUILD

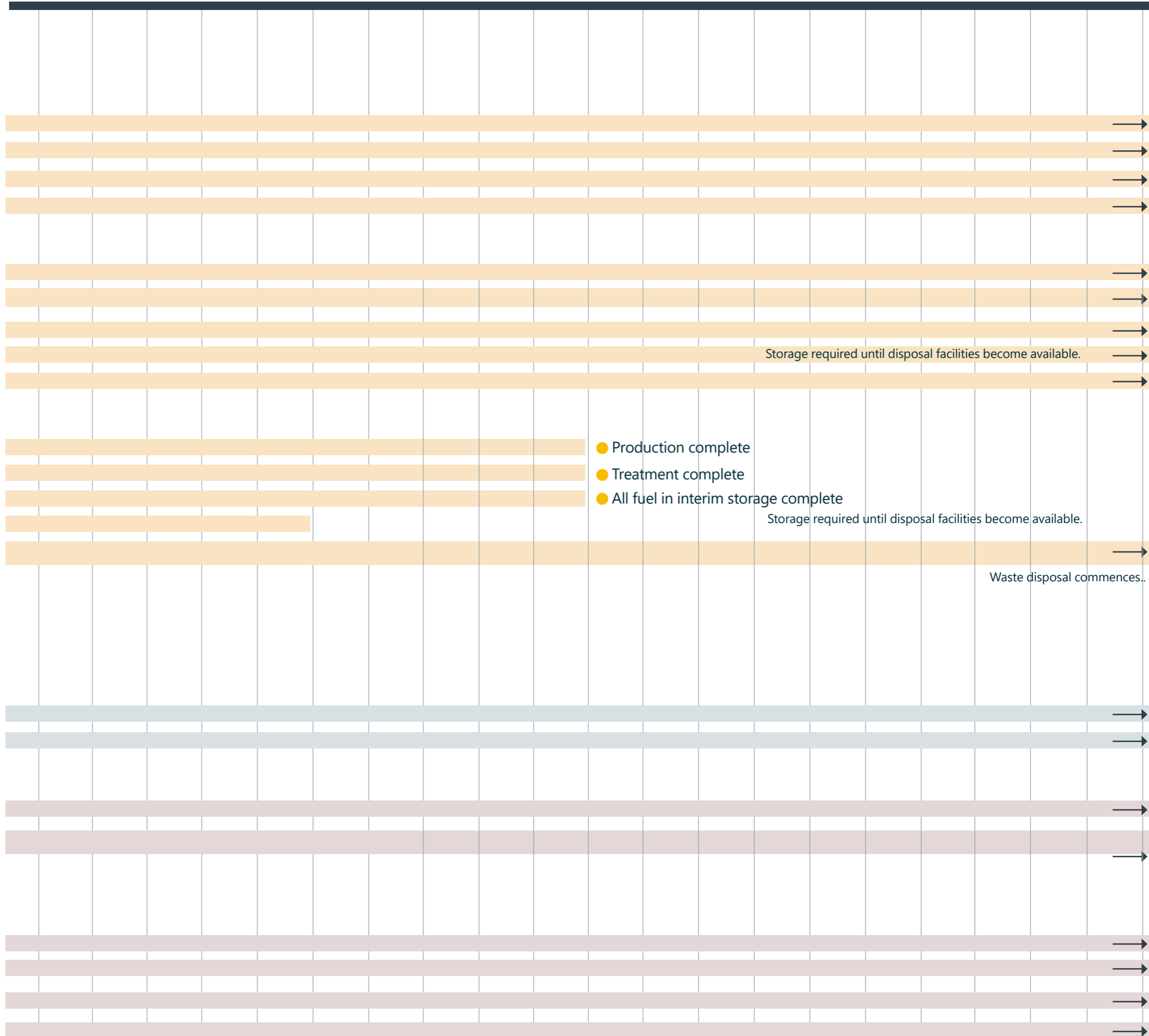
- 40 All planned new buildings operational
- 41 All buildings primary function completed

#### DECOMMISSION AND DEMOLISH

- 42 All buildings decommissioned
- 43 All buildings demolished or reused

#### DEDESIGNATE OR REUSE

- 44 All land delicensed or relicensed
- 45 All land in End State - all planned physical work complete
- 46 All land demonstrated as suitable for reuse
- 47 All land dedesignated or reused



# References

1. Energy Act (2004)

## Useful links

- Nuclear Decommissioning Authority ([www.gov.uk/nda](http://www.gov.uk/nda))
- Department for Business, Energy and Industrial Strategy ([www.gov.uk/beis](http://www.gov.uk/beis))
- Sellafield Ltd ([www.gov.uk/government/organisations/sellafield-ltd](http://www.gov.uk/government/organisations/sellafield-ltd))
- Magnox Ltd ([www.gov.uk/government/organisations/magnox-ltd](http://www.gov.uk/government/organisations/magnox-ltd))
- LLWR Ltd ([www.gov.uk/government/organisations/low-level-waste-repository-ltd](http://www.gov.uk/government/organisations/low-level-waste-repository-ltd))
- Dounreay Ltd ([www.gov.uk/government/organisations/dounreay](http://www.gov.uk/government/organisations/dounreay))
- Nuclear Transport Solutions ([www.nucleartransportsolutions.com](http://www.nucleartransportsolutions.com))
- Radioactive Waste Management Ltd ([www.gov.uk/government/organisations/radioactive-waste-management](http://www.gov.uk/government/organisations/radioactive-waste-management))
- Direct Rail Services Ltd ([www.directrailservices.com](http://www.directrailservices.com))
- URENCO Ltd ([www.urencoltd.com](http://www.urencoltd.com))
- Springfields Fuels Ltd ([www.westinghousenuclear.com](http://www.westinghousenuclear.com))

## Useful documentation

- NDA Strategy - March 2021  
[www.gov.uk/government/consultations/nuclear-decommissioning-authority-nda-strategy](http://www.gov.uk/government/consultations/nuclear-decommissioning-authority-nda-strategy)
- NDA Annual Report and Accounts 2020-21  
[www.gov.uk/government/publications/nuclear-decommissioning-authority-annual-report-and-accounts-2020-to-2021](http://www.gov.uk/government/publications/nuclear-decommissioning-authority-annual-report-and-accounts-2020-to-2021)
- NDA Mission Progress Report (Nov 2021)  
[www.gov.uk/government/publications/nuclear-decommissioning-authority-mission-progress-report-2021](http://www.gov.uk/government/publications/nuclear-decommissioning-authority-mission-progress-report-2021)
- Mid-Year Performance Report 2020-2021  
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- NDA group Inclusion Strategy 2021-2025  
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# Glossary

|                 |   |
|-----------------|---|
| <b>AGR</b>      | Advanced Gas-Cooled Reactor                             |
| <b>BEIS</b>     | Department for Business, Energy and Industrial Strategy |
| <b>CAPEX</b>    | Capital expenditure                                     |
| <b>DFR</b>      | Dounreay Fast Reactor                                   |
| <b>DRS</b>      | Direct Rail Services Ltd                                |
| <b>DSRL</b>     | Dounreay Site Restoration Ltd                           |
| <b>EDFE</b>     | EDF Energy  |
| <b>ED&amp;I</b> | Equality, Diversity and Inclusion                       |
| <b>FGMSP</b>    | First Generation Magnox Storage Pond                    |
| <b>FHP</b>      | Fuel Handling Plant                                     |
| <b>GDF</b>      | Geological Disposal Facility                            |
| <b>HAL</b>      | Highly Active Liquor                                    |
| <b>ILW</b>      | Intermediate Level Waste                                |
| <b>INS</b>      | International Nuclear Services Ltd                      |
| <b>LETP</b>     | Liquid Effluent Treatment Plant                         |
| <b>LLW</b>      | Low Level Waste   |
| <b>LLWR</b>     | Low Level Waste Repository                              |
| <b>MOD</b>      | Ministry of Defence                                     |
| <b>MOX</b>      | Mixed Oxide Fuel  |
| <b>MSSS</b>     | Magnox Swarf Storage Silo                               |
| <b>NDA</b>      | Nuclear Decommissioning Authority                       |
| <b>NDAPL</b>    | NDA Properties Ltd                                      |
| <b>NTS</b>      | Nuclear Transport Solutions                             |
| <b>NWS</b>      | Nuclear Waste Services                                  |
| <b>POCO</b>     | Post Operational Clean Out                              |
| <b>PFR</b>      | Prototype Fast Reactor                                  |
| <b>PFSP</b>     | Pile Fuel Storage Pond                                  |
| <b>PPP</b>      | Programme and Project Partner                           |
| <b>RD&amp;I</b> | Research, Development and Innovation                    |
| <b>RWM</b>      | Radioactive Waste Management Ltd                        |
| <b>SGHWR</b>    | Steam Generating Heavy Water Reactor                    |
| <b>SLC</b>      | Site Licence Company                                    |
| <b>SME</b>      | Small and Medium Enterprise                             |
| <b>THORP</b>    | Thermal Oxide Reprocessing Plant                        |
| <b>UKGI</b>     | UK Government Investments                               |

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