

# Nuclear Decommissioning Authority

# Business Plan

Financial year beginning April 2014 to financial year ending March 2017

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**Financial year beginning April 2014 to financial year ending March 2017**

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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.

April 2014

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This publication is available at <https://www.gov.uk/government/publications>

This document is also available from our website at [www.nda.gov.uk](http://www.nda.gov.uk)

Print ISBN 9781474102018  
Web ISBN 9781474102025

Printed in the UK by the Williams Lea Group on behalf of the Controller of Her Majesty's Stationery Office

ID 04041405      04/14

Printed on paper containing 75% recycled fibre content minimum



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## **Our mission is to:**

**Deliver safe, sustainable and publicly acceptable solutions to the challenge of nuclear clean-up and waste management. This means never compromising on safety or security, taking full account of our social and environmental responsibilities, always seeking value for money for the taxpayer and actively engaging with stakeholders.**



## Contents

<b>Foreword</b>	<b>5</b>
<b>Introduction</b>	<b>6</b>
<b>NDA Sites Location Map</b>	<b>7</b>
<b>Our Funding</b>	<b>8</b>
<b>Delivery Activities within Strategic Themes</b>	<b>11</b>
<b>20 Year Overview</b>	<b>14</b>
<b>Site Summaries</b>	<b>15</b>
<b>Sellafield Limited SLC</b>	<b>15</b>
Sellafield	15
<b>Magnox Limited SLC</b>	<b>18</b>
Berkeley	20
Bradwell	21
Chapelcross	22
Dungeness A	23
Hinkley Point A	24
Hunterston A	25
Oldbury	26
Sizewell A	27
Trawsfynydd	28
Wylfa	29
<b>Research Sites Restoration Limited SLC</b>	<b>30</b>
Harwell	31
Winfrith	32
<b>Dounreay Site Restoration Limited SLC</b>	<b>33</b>
Dounreay	33
<b>LLW Repository SLC</b>	<b>35</b>
LLWR	35
<b>Springfields</b>	<b>37</b>
<b>Capenhurst</b>	<b>38</b>
<b>NDA</b>	<b>39</b>
NDA	39
<b>NDA Subsidiary Companies</b>	<b>41</b>
Radioactive Waste Management Limited	41
Direct Rail Services Limited	43
NDA Properties Limited	43
International Nuclear Services Limited	44
Rutherford Indemnity Limited	44
<b>Response to Consultation</b>	<b>45</b>
<b>Glossary</b>	<b>46</b>
<b>References</b>	<b>47</b>

## Foreword



After a process running for around two years our competition team has now completed the evaluation of the final tenders from the bidding consortia for the ownership of the Site Licence Companies, Magnox Ltd and RSRL and I can now confirm that the Preferred Bidder is Cavendish Fluor Partnership with share transfer due to take place in September 2014. This contract represents one of the UK's largest public procurement exercises valued at approximately £6-7 billion over 14 years.

Notwithstanding the competition, progress at the Magnox sites has continued and following hard on the heels of fuel free status at Chapelcross, this year will see the completion of defuelling activities at Sizewell. Since the publication of our Draft Business Plan however, there have been some setbacks in projects dealing with the Fuel Element Debris (FED) at Bradwell with some impact on preparations for entry into Care and Maintenance. Nevertheless, the site is still scheduled to enter the Care and Maintenance phase in 2015 approximately 12 years earlier than originally planned. All these activities are testament to the hard work and determination of both the Magnox personnel and the NDA.

This financial year will see us entering into the second five year term of a 17 year contract with Nuclear Management Partners (NMP) for the management and operation of the Sellafield site. During 2013 we undertook an extensive review of progress made to date and concluded that the right decision was to give NMP further time to bring about the improvements in capability and performance at the site that we and they are looking for.

As I have said in the past, Sellafield is by far the most complex and challenging site in our portfolio. During 2014/2015 we expect to see continuing progress on the downstream plants in supporting the preparations for retrievals of hazardous wastes within Legacy Ponds and Silos, one of the most complicated areas we are tackling at the site. We will continue to monitor performance closely and remain focussed on achieving our goal of safe, effective, value for money decommissioning at Sellafield – as we are seeing elsewhere across our portfolio of sites.

This year will also see the commencement of the third year of the Dounreay target cost contract where we expect to see further progress on the activities set out within this Business Plan. In addition, Dounreay continues to be the role model for the effective management of technically challenging decommissioning under a target cost contractual model, with high levels of interest being shown from both UK and international visitors. Overall Dounreay is on target to deliver the business case benefits originally forecast and has met all of its milestones to date while taking on additional work anticipated, but not specified in detail at the time of competition.

At the Low Level Waste Repository (LLWR) the Environmental Permit and Planning approval anticipated in 2014 will allow the disposal of Low Level Waste (LLW) in current and future vaults. This will then allow LLWR to install the necessary engineering for the eventual closure and capping of the facility.

The NDA SME (Small and Medium Enterprise) agenda, which the SLCs are supporting, is an important initiative to help develop a broad and sustainable supply chain. The aim is not to hit specific numbers but to ensure that the NDA Estate uses the most appropriate contractors commensurate with the real needs of the business. This agenda supports the wider Government growth agenda which is critical given the longevity of our programme.

I am pleased to announce that from the 1 April 2014, the Radioactive Waste Management Directorate has been established as a wholly owned subsidiary of the NDA and is now known as Radioactive Waste Management Limited. As a separate legal entity it will be able to apply for and hold permits and licences as required in due course. We will continue to support Government in its Managing Radioactive Waste Safely (MRWS) programme, working with interested communities and other stakeholders.

A handwritten signature in black ink, appearing to read 'John Clarke'.

**John Clarke**  
Chief Executive



# Introduction

This Business Plan sets out our key objectives and plans for delivering our priorities over the next three years.

## Our remit

The NDA is a Non-Departmental Public Body (NDPB) set up under the Energy Act 2004 (*ref 6*) to ensure that the UK's 17 designated civil public sector nuclear sites are decommissioned and cleaned up safely and efficiently.

The Secretary of State of the Department of Energy and Climate Change (DECC) approves our Strategy and Annual Plans in consultation with the Scottish Ministers as required by the Energy Act (*ref 6*). The NDA Board is responsible for delivery of these plans. The Government holds us to account for performance against our Strategy and Plans. The Shareholder Executive (ShEx) acting as part of DECC, provides governance over the NDA for DECC.

DECC and the Scottish Government have a target to make tangible progress in decommissioning and clean-up. This is demonstrated by a reduction in the UK civil nuclear liabilities and of the risks associated with high hazards (by progressively mitigating hazards and ensuring radioactive waste continues to be put into a passively safe form). Progress on these activities is reported in our Annual Report and Accounts (ARAC).

## Delivery of the mission

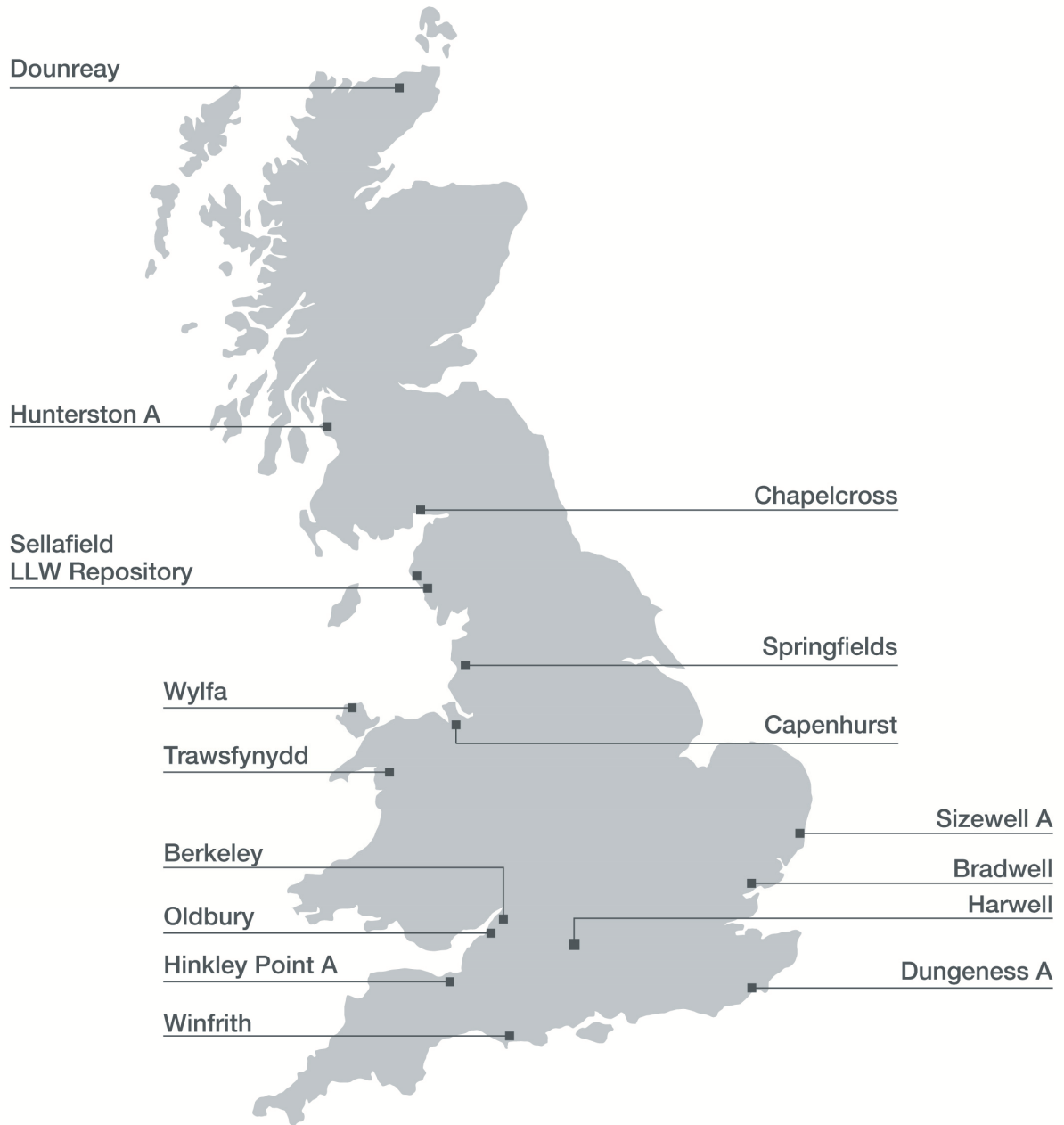
Each of our 17 sites is operated by Site Licence Companies (SLCs) under contract to the NDA. SLCs are responsible for day-to-day operations and the delivery of site programmes. Parent Body Organisations (PBOs), selected through a competitive process bringing in private sector expertise, own the SLCs for the duration of their contract with the NDA, earning fee based on performance and efficiencies gained.

## NDA Plans

The diagram below provides an overview of NDA Plans and reporting process. SLCs formulate their plans based on the Strategy and the budget allocated in the Spending Reviews. Activities for each site are detailed in the NDA Business Plan. Progress on activities is reported on a quarterly basis on our website, with the year-end performance reported in the ARAC.



## NDA Sites Location Map



## Our Funding

### **Funding Framework**

The NDA is publicly funded with part of this coming from the income it generates from its commercial activities. Our total planned expenditure is voted upon annually by Parliament.

### **Government Funding**

The last Spending Review added a further one year's funding to the SR10 settlement securing outline funding for five years through to 2015/2016.

### **Commercial Income**

Our commercial operations fall broadly into two areas:

- electricity generation and associated trading
- spent fuel and nuclear materials management, including reprocessing

Our objective is to maximise revenue from our existing assets and operations to help fund decommissioning and clean-up, thereby reducing the burden on the UK taxpayer. To achieve this we will include optimised income from electricity generation, leasing property and selling land and other assets in response to market interest.

The nature of our commercial activities means we have to manage a significant degree of income volatility, largely due to our operations relying on ageing assets and infrastructure: Wylfa, for example, is over 40 years old. Furthermore, this income will decline in future years as plants close and enter decommissioning.

### **Prioritisation and Allocation of Funding**

Within affordability constraints, we will seek to maintain progress and maximise value for money. We will do this by focussing on the highest hazards and risks, protecting the funding for Legacy Ponds and Silos, whilst ensuring that safe, secure and environmentally responsible site operations are maintained across our estate.

The Spending Review process used criteria drawn from our Value Framework to evaluate options. These criteria - Affordability (short, medium and long-term), Value for Money, Safety and Environmental Impact, Deliverability, Socio-Economic and UK Government Policy Impact - will inform the management decisions to be taken in the process of allocating available funding over the Business Plan period.

### **Planned Income and Expenditure in 2014/2015**

This Business Plan sets out our anticipated income and expenditure for 2014/2015 in line with the settlement agreed in the 2010 Spending Review.

Our total planned expenditure for 2014/2015 is £3.2 billion, of which £2.2 billion will be funded by UK Government and £1.0 billion by income from commercial operations. Planned expenditure on site programmes will be £3.0 billion, while non-site expenditure is expected to be £0.2 billion. This non-site expenditure includes skills development, socio-economic, research & development (R&D), insurance and pension costs, fees to SLCs, implementing geological disposal and NDA operating costs as detailed on page 10.

## Planned Income and Expenditure Summary

£M		Decom & Clean-up Costs	Total Operations Costs		2014/15 Plan	2013/14 Plan
SLC/Subsidiaries/Sites	A		Running Cost	Capex		
Magnox Ltd	Berkeley	58.0			58.0	71.8
	Bradwell	90.0			90.0	116.1
	Chapelcross	56.0			56.0	51.2
	Dungeness A	41.0			41.0	36.2
	Hinkley Point A	36.0			36.0	45.3
	Hunterston A	43.0			43.0	32.3
	Magnox Support Office	85.0			85.0	52.2
	Oldbury	58.0			58.0	59.7
	Sizewell A	38.0			38.0	35.8
	Trawsfynydd	60.0			60.0	62.6
	Wylfa			94.0	94.0	87.8
Electricity Trading	Electricity Trading		73.6		73.6	65.0
Research Sites Restoration Ltd	Harwell and Winfrith	70.5			70.5	65.0
Dounreay Site Restoration Ltd	Dounreay	171.9			171.9	175.0
Sellafield Ltd	Sellafield	804.6	703.1	292.3	1,800.0	1,760.0
LLWR Ltd	LLWR	51.5			51.5	33.0
Springfields Fuels Ltd	Springfields	50.0			50.0	53.0
Capenhurst	Capenhurst	20.8			20.8	21.0
Nuclear Transport and Contract Management	International Nuclear Services		145.6	0.5	146.1	159.0
Non site expenditure		184.9			184.9	185.0
<b>TOTAL</b>		<b>1,919.2</b>	<b>1,016.3</b>	<b>292.8</b>	<b>3,228.3</b>	<b>3,167.0</b>
<b>Income</b>					<b>992.8</b>	<b>887.0</b>
<b>Net</b>					<b>2,235.5</b>	<b>2,280.0</b>

Notes:

- Numbers may not cast due to rounding
- Final Annual Site Funding Limits issued in March 2014 may be adjusted to reflect efficiency performance and portfolio pressures. The NDA reserves the right to reallocate funding to meet prioritised programme needs.

Summary NDA SR10 Funding	2012/13 £ M	2013/14 £ M	2014/15 £ M	2015/16 £ M
Income	717	887	993	1,209
Government funding	2,286	2,280	2,236	2,094
Expenditure	(3,003)	(3,167)	(3,228)	(3,303)
<b>Net</b>	<b>0</b>	<b>(0)</b>	<b>0</b>	<b>0</b>

## 2014/2015 Breakdown of Planned Non-site Expenditure

Non site expenditure	2014/15	2013/14
	Plan £ M	Plan £ M
NDA operating costs	42.7	48.0
Radioactive Waste Management Directorate	25.8	21.0
Socio Economic, Skills, R&D, Knowledge	29.4	31.0
Insurance	12.0	12.0
Contractor fees	75.0	73.0
<b>Total</b>	<b>184.9</b>	<b>185.0</b>

## 2014/2015 Breakdown of Planned Income by Category

Income Source	2014/15 Plan £ M
Reprocessing and fuel management services	620.1
Electricity Generation	220.3
NDA - INS Transport	82.3
Intra site services	70.2
<b>Total</b>	<b>992.8</b>

## Delivery Activities within Strategic Themes

The reference letters indicated within the key activities below relate to the 20 year overview on page 14.





### Site Restoration (SR)



**Objective – To restore our designated sites and release them for other uses.**

Our priority within this theme is to remediate all intolerable risks in the Legacy Ponds and Silos (LP&S) at Sellafield. We will also decommission redundant facilities at Sellafield whilst maintaining, and, as appropriate, upgrading the infrastructure and capability across the site to sustain the operations of key supporting plants and services. Across the rest of the estate we will place Magnox reactors into Care and Maintenance (C&M), deliver Dounreay site to an Interim State and take Harwell and Winfrith to site closure.

Key activities for the year 2014/2015 are as follows:

			
<b>SLC: Sellafield</b> <b>A</b>	<b>SLC: Sellafield</b> <b>B</b>	<b>SLC: Magnox</b> <b>C</b>	<b>SLC: Magnox</b> <b>D</b>
<b>Programme: LP&amp;S Pile Fuel Cladding Silo –</b> Continue works testing of the hole cutting machine in preparation for retrievals	<b>Programme: LP&amp;S First Generation Magnox Storage Pond –</b> Complete active tie-ins for Sludge Packaging Plant (SPP1) buffer in readiness for retrievals	<b>Programme: MODP Trawsfynydd – Active Waste Vaults –</b> Completion of ILW solid retrievals and processing	<b>Programme: MODP Bradwell –</b> Decommissioning and demolition activities in preparation for entry into Care and Maintenance



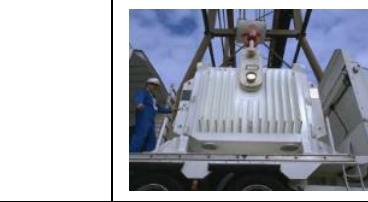
### Spent Fuels (SF)



**Objective – To ensure safe, secure and cost effective lifecycle management of spent Magnox, spent Oxide and spent Exotic fuels.**

We will manage all spent Magnox fuel and place all Exotic fuels into a final disposition form. On Oxide fuels, we will continue to receive and manage fuel from EDF Energy, thereby supporting the operation of the UK's Advanced Gas-Cooled Reactor (AGR) power stations, and seek to optimise value from our spent fuel management contracts.

Key activities for the year 2014/2015 are as follows:

		
<b>SLC: DSRL&amp; Sellafield</b> <b>E</b>	<b>SLC: Magnox</b> <b>F</b>	<b>SLC: Sellafield</b> <b>G</b>
<b>Programme: Dounreay Optimisation</b> Completion of all out of reactor Breeder fuel shipments	<b>Programme: MOP9 Magnox Operating Programme</b> Sizewell A – Complete defuelling in line with MOP9 (ref 5) – all fuel off site	<b>Programme: Oxide Fuels</b> Continue to receive and reprocess AGR fuel from EDF Energy

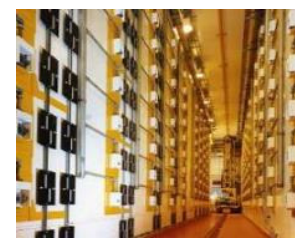
## Nuclear Materials (NM)



**Objective – To ensure safe, secure and cost-effective lifecycle management of our nuclear materials.**

Nuclear materials consist of unirradiated fuel i.e. fuel which has not been through a reactor, therefore not classed as a spent fuel.

Key activities for the year 2014/2015 are as follows:



**SLC: Sellafield & NDA**

Continue with the safe and secure storage of plutonium in line with UK policy

**SLC: RSRL & Sellafield** **H**

**Programme: RSRL Optimisation**  
Continued implementation of a programme for the transfer of nuclear materials

**SLC: DSRL & Sellafield** **J**

**Programme: Dounreay Optimisation**  
Receive first transports of unirradiated exotic fuel

## Integrated Waste Management (IWM)



**Objective – To ensure that wastes are managed in a manner that protects people and the environment, whilst complying with UK Government and Scottish Government policies and providing value for money.**

Key activities for the year 2014/2015 are as follows:



**SLC: Sellafield** **K**

**Programme: High Level Waste Management**  
Continued delivery of Highly Active Liquor (HAL) stock reduction

**SLC: LLWR** **L**

**Programme: LLW**  
Delivery of the National LLW Programme to optimise LLW Strategy implementation

### Business Optimisation (BO)



**Objective – To create an environment where existing revenue can be secured and opportunities can be developed against criteria agreed with UK Government and the Scottish Government.**

#### Key activities for the year 2014/2015 are as follows:



**SLC: Magnox**

Support to NDA in property activities to reduce NDA decommissioning liability and achieve best value on asset disposal

**SLC: Magnox**

Continued electricity generation at Wylfa

### Critical Enablers (CE)



**Objective – To provide the stable and effective implementation framework that enables the delivery of our mission.**

The NDA has a responsibility to deliver skills, Research & Development (R&D) and supply chain development, to consider the socio-economic aspects of its programme and to maintain effective stakeholder management.

#### Key activities for the year 2014/2015 are as follows:



**NDA Estate**

Support Small & Medium Enterprise organisations by increasing overall spend with them to 20%

**NDA**

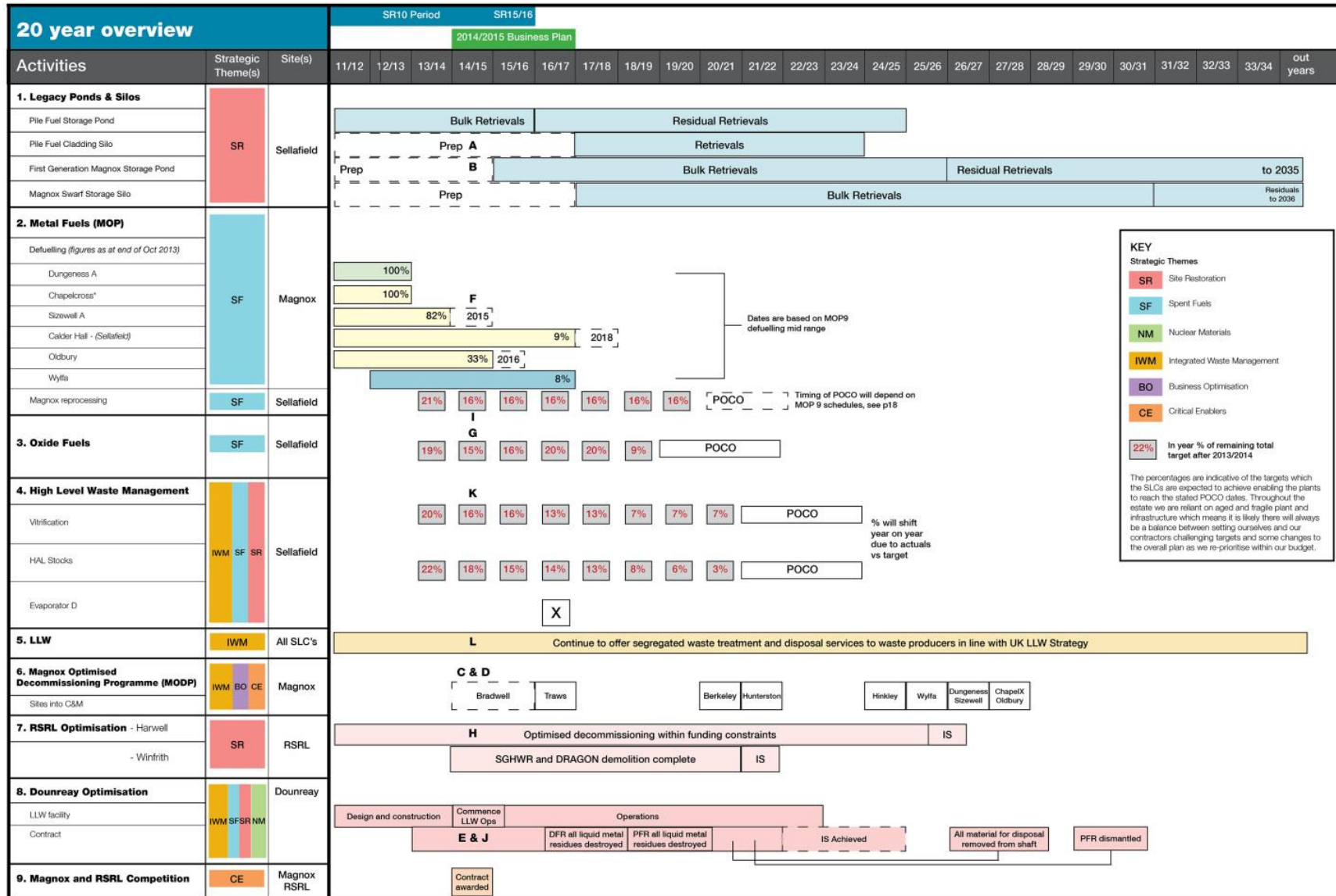
Review of NDA Strategy in preparation for consultation on Strategy III

**NDA**


Prepare Contract Management Plan and transition to the new target cost contract for Magnox & RSRL



**Nuclear Decommissioning Authority**  
 Business Plan 2014 – 2017



## Site Summaries

	<p>Sellafield Limited is the SLC responsible for the operation of the Sellafield nuclear licensed site.</p>
	<p>The current PBO is Nuclear Management Partners Limited (NMPL)</p>
	<p><b>Planned expenditure for 2014/2015 - £1,800 million</b></p>

### Sellafield - Location: Cumbria, Area: 262 hectares



#### Current Key Milestones

- 2015-2017** - Commence sludge retrievals from the First Generation Magnox Storage Pond
- 2015-2017** - Commence sludge exports from the Pile Fuel Storage Pond
- 2015-2017** - Completion of all oxide fuel contracts for overseas customers

#### Status of land

All 262 hectares covered by the nuclear site licence

Top left: Sellafield site, Top Right: Preparing a facility to receive Silo Emptying Plant (SEP2) Machine

The activities listed below are taken from Performance Plan 11. On completion of Performance Plan 14 some of these activities may be superseded or new activities included. An update will be provided in next years' Business Plan.

### 2014 – 2015 Key Activities

**SR**

The areas of principal focus are the redundant Legacy Ponds & 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. Latterly, they have supported the generation from the fleet of Magnox power stations and are in need of clean-up and decommissioning. 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 in passive conditions. 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.

**The following activities are key steps in the delivery of these major clean-up programmes:**

#### Pile Fuel Storage Pond

- Continue consolidation of sludge within the pond
- Continue removal of contaminated metal for treatment and storage
- Continue consolidation and export of metal fuel from the pond and wet bays

#### Pile Fuel Cladding Silo

- Continue works testing of the hole cutting machine in preparation for retrievals
- Select the contractor to support the Box Encapsulation Plant Product Store / Direct Import Facility (BEPPS/DIF)
- Complete tender assessments for 3m<sup>3</sup> boxes for Intermediate Level Waste (ILW) retrieval projects

#### First Generation Magnox Storage Pond

- Complete manufacture and works testing of the single export cell systems for the Export/Inlet building
- Complete active tie-ins for SPP1 (Sludge Storage Tanks) buffer in readiness to receive sludge
- Continuation of fuel consolidation, pond floor clearance and installation of sludge recovery systems

#### Magnox Swarf Storage Silo

- Continue to develop the downstream capability to receive and treat material from this facility
- Continue to prepare the facility for the installation of Silo Emptying Plant (SEP2) machines


	<ul style="list-style-type: none"> <li>– Commence delivery and installation of SEP2 machine</li> <li>– Completion of the Silo Maintenance Facility main building foundations</li> </ul> <p><b>Decommissioning</b></p> <ul style="list-style-type: none"> <li>– Continue the decommissioning and demolition of the filter gallery from Windscale Chimney Pile</li> <li>– Continue to retrieve and treat legacy flocculent from the storage tanks</li> </ul>
<b>SF</b>	<p>All of the spent fuels discharged from the operating Advanced Gas-Cooled Reactors (AGR) power stations and the operating or defuelling Magnox power stations reactors are sent to Sellafield for management. The management of AGR fuel under contracts with EDF Energy provides a significant income stream to the NDA. Sellafield will continue to implement the strategy to reprocess all Magnox fuel and to complete the Thermal Oxide Reprocessing Plant (THORP) reprocessing contracts for both EDF Energy’s AGR fuel and overseas customers’ fuels.</p> <p><b>The following activities highlight the key steps:</b></p> <ul style="list-style-type: none"> <li>Continue to reprocess Magnox Fuel in line with MOP9 (<i>ref 5</i>)</li> <li>Completion of all shipment of out of reactor breeder fuel from Dounreay</li> <li>Continue to receive and manage AGR fuel from EDF Energy</li> <li>Continue to reprocess oxide fuel through THORP from EDF Energy and overseas customers</li> <li>Continue the removal of Multi-Element Bottles (MEBs) from THORP</li> </ul>
<b>NM</b>	<p>Sellafield is the custodian of the majority of the UK’s stockpile of plutonium which is held in safe and secure storage. Consolidation of materials is an ongoing activity and will continue to be part of the sites mission.</p> <p><b>The following activities highlight the key steps:</b></p> <ul style="list-style-type: none"> <li>Continue the safe and secure storage of plutonium in line with UK policy</li> <li>Receive first transports of exotic fuel from Dounreay</li> <li>Continue the implementation of a programme for the transfer of nuclear materials from Harwell</li> </ul>
<b>IWM</b>	<p>The various activities of the site produce wastes in many forms. This requires varying degrees of treatment and onward processing. The site will continue to focus on safe, efficient management of these wastes from reducing the stocks of Highly Active Liquor (HAL) which are produced as part of the reprocessing operations, to returning vitrified material overseas and management of on-site intermediate and low level wastes.</p> <p><b>The following activities highlight the key steps:</b></p> <ul style="list-style-type: none"> <li>Continue to process HAL through the Waste Vitrification Plant</li> <li>Continue to repatriate overseas owned vitrified HAL to its country of origin</li> <li>Complete all module pipe work on Evaporator D</li> <li>Diversion of materials from LLWR in line with the LLW Strategy implementation and optimisation plan</li> </ul>
<b>CE</b>	<p>A number of key enabling activities require specific focus which range from infrastructure refurbishment or replacement projects, in support of the above activities, through to key change programmes which aim to improve operational delivery and efficiency on site.</p> <p><b>The following activities highlight the key steps:</b></p> <ul style="list-style-type: none"> <li>Continue the Sellafield infrastructure enhancement programme</li> <li>Continue the implementation of the Excellence Plan which is an evolution of the Integrated Change Programme (ICP) to improve capability</li> <li>Support Small &amp; Medium Enterprise organisations by increasing overall spend with them to 20%</li> </ul>

### 2014 – 2015 Regulatory Matters

- Deliver performance plan milestones to reduce environmental risk (including retrieval and treatment of legacy wastes, reduction of HAL stocks and continued delivery of MOP9)
- Minimise discharges in line with UK discharge strategy and develop contingency against failure of vessels and pipework in the Site Ion Exchange Plant (SIXEP)
- Continue to deliver the suite of improvements necessary to ensure that the site is resilient to severe events
- Maintain an asset management regime that takes into account the impact of asset condition on meeting regulation and delivery of milestones

### 2015 – 2017 Planned Key Activities

<b>SR</b>	Pile Fuel Storage Pond: First export of sludge to Waste Encapsulation Plant
	Pile Fuel Cladding Silo: Complete the hole cutting operations
	Pile Fuel Cladding Silo: Inactive commissioning of the crane in BEPPS/DIF
	Pile Fuel Cladding Silo: 100 boxes produced in readiness for retrievals
	First Generation Magnox Storage Pond: Commence pond sludge retrievals and export
	Magnox Swarf Storage Silo: Continue to develop the downstream capability to receive and treat material from the facility
	Magnox Swarf Storage Silo: Commence inactive commissioning of SEP2
	Continue to retrieve and treat legacy flocculent from the flocculent storage tanks
	Continue to develop the capability to retrieve waste from legacy facilities
<b>SF</b>	Continue to reprocess Magnox fuel in line with MOP9 ( <i>ref 5</i> )
	Completion of all oxide fuel contracts for overseas customers
	Continue the removal of MEBs from THORP
	Continue to receive and reprocess AGR fuel from EDF Energy
<b>NM</b>	Develop the approach for implementation of the safe and secure storage of plutonium
	Continue to receive exotic fuels from Dounreay
<b>IWM</b>	Continue to process HAL through the Waste Vitrification Plant
	Complete active commissioning of Evaporator D
	Continue to repatriate overseas owned vitrified HAL to country of origin
	Diversion of materials from LLWR in line with the LLW Strategy implementation and optimisation plan
<b>CE</b>	Continue the implementation of the Excellence Plan

	<p>Magnox Ltd is the SLC responsible for the operation of the Berkeley, Bradwell, Chapelcross, Dungeness A, Hinkley Point A, Hunterston A, Oldbury, Sizewell A, Trawsfynydd and Wylfa sites.</p> <p>The current PBO of the company is Energy Solutions. Share transfer to Cavendish Fluor Partnership will take place in September 2014.</p>
	<p><b>Planned expenditure for 2014/2015 - £659 million</b></p>

**The current competition may lead to changes in the overall plan**

The NDA requires Magnox Ltd SLC to manage the generation, defuelling, preparations to enter Care and Maintenance, the Care and Maintenance phase and final site clearance of the Magnox reactor fleet.

The key activities are maintaining safety and security at all times and managing the environmental impact of activities which include:

- Electricity generation at Wylfa and Maentwrog
- Defuelling at Sizewell A and Oldbury
- Accelerated decommissioning at Bradwell and Trawsfynydd (lead & learn sites)
- Decommissioning and demolition of facilities at Hunterston A, Berkeley, Chapelcross, Dungeness A and Hinkley Point A

These activities are combined into the Magnox Optimised Decommissioning Programme (MODP) (*ref 4*) which uses the 'lead and learn' concept to drive efficiencies across the Magnox SLC. The experience of work and learning on 'lead' sites can be rolled out to the rest of the sites over time.

Magnox will defuel their remaining sites in line with MOP9 (*ref 5*). The publication of MOP9 in Summer 2012 has presented future outcomes in a manner which recognises programme variability and sensitivity to events. The use of upper and lower bound performance levels provides a realistic indication of the potential range of key dates and means MOP9 will remain valid, provided average reprocessing performance lies within the Performance Range.

<b>2014 – 2015 Magnox Key Activities</b>	
<b>SR</b>	Delivery of 'lead and learn' programmisation principles across Magnox SLC
<b>SF</b>	Management of MOP9 ( <i>ref 5</i> ) and co-ordination of Magnox fuel management activities with Sellafield and Dounreay
	All fuel off site at Sizewell
<b>IWM</b>	Delivery of the Magnox element of the estate-wide Low Level Waste management plan
<b>BO</b>	Optimisation of electricity generation at Wylfa
	Support to NDA in property activities to reduce NDA decommissioning liability and achieve best value on asset disposal
<b>CE</b>	Complete transition to the new PBO following competition
	Small and Medium Enterprise (SME) Growth Agenda
	Development of Interim Care & Maintenance state approaches and revised Care & Maintenance management arrangements

**2014 – 2015 NDA and Regulatory Matters**

- NDA and Regulatory permissioning in support of the Care and Maintenance entry definitions and arrangements
- NDA and Regulatory permissioning to enable the optimisation of electricity generation at Wylfa

**2015 – 2017 Planned Key Activities**

<b>SF</b>	Management of MOP9 ( <i>ref 5</i> ) and co-ordination of Magnox fuel management activities with Sellafield and Dounreay
<b>IWM</b>	Delivery of the Magnox element of the estate-wide Low Level Waste Management plan
<b>BO</b>	Optimisation of electricity generation at Wylfa
	Support to the NDA in property activities to reduce NDA decommissioning liability and achieve best value on asset disposal
<b>CE</b>	Transition management arrangements for Care and Maintenance state
	SME Growth Agenda

**2015 – 2017 NDA and Regulatory Matters**

- NDA and Regulatory permissioning in support of the Care and Maintenance entry definitions and arrangements

<b>Berkeley - Location:</b> Gloucestershire, <b>Area:</b> 27 hectares		
		<p><b>Current Key Milestones -</b>  <b>2021</b> – Site enters Care and Maintenance  <b>2070</b> – Final site clearance commences  <b>2079</b> – Final site clearance achieved</p> <p><b>Status of land -</b>  <b>De-licensed:</b> 11 hectares (27 acres) of the site (approximately 40%) has been de-licensed  <b>De-designation:</b> Modification of Designating Direction signed by the Minister in January 2012</p>



Top left: Berkeley site, Top right: Last Berkeley boiler sent off site for recycling

<b>2014 – 2015 Key Activities</b>	
<b>IWM</b>	<p>Completion of caesium removal plant bulk resins retrievals</p> <p>Continuation of ILW plant retrievals and packaging</p>

<b>2014 – 2015 NDA and Regulatory Matters</b>	
<ul style="list-style-type: none"> <li>• NDA and Regulatory permissioning in support of the Berkeley ILW Management Programme</li> </ul>	

<b>2015 – 2017 Planned Key Activities</b>	
<b>IWM</b>	<p>Completion of Chute silo retrievals</p> <p>All ILW Passively Stored</p> <p>Completion of retrieval activities in the active waste vaults</p>
<b>SR</b>	<p>Decommissioning and demolition activities in preparation for entry into Care and Maintenance</p>

<b>2015 – 2017 NDA and Regulatory Matters</b>	
<ul style="list-style-type: none"> <li>• NDA and Regulatory permissioning in support of the Berkeley ILW Management Programme</li> <li>• NDA and Regulatory permissioning in support of the Care and Maintenance entry definitions and arrangements</li> </ul>	

<b>Bradwell - Location: Essex, Area: 20 hectares</b>		
		<p><b>Current Key Milestones -</b>  <b>2015</b> – Site enters Care and Maintenance  <b>2083</b> – Final site clearance commences  <b>2092</b> – Final site clearance achieved</p> <p><b>Status of land</b>  All 20 hectares remain covered by the nuclear site licence</p>

Top left: Bradwell site, Top right: Bradwell Interim Storage Facility officially opened



<b>2014 – 2015 Key Activities</b>	
<b>SR</b>	Decommissioning and demolition activities in preparation for entry into Care and Maintenance
	Continue Fuel Element Debris (FED) dissolution and retrievals

<b>2014 – 2015 NDA and Regulatory Matters</b>	
<ul style="list-style-type: none"> <li>NDA and Regulatory permissioning in support of the Care and Maintenance entry definitions and transitional arrangements</li> </ul>	

<b>2015 – 2017 Planned Key Activities</b>	
<b>SR</b>	Completion of FED dissolution and retrievals
	All ILW Passively Stored
	Ponds Complex and Contaminated Structures (Vaults) completed for entry into Care and Maintenance
	Reactor buildings Safestore – weather envelope completed
	Site completes activities to enable entry into Care and Maintenance
<b>CE</b>	Completion of transition management arrangements for Care and Maintenance state
	Interim State of Lead Site Achieved



<b>2015 – 2017 NDA and Regulatory Matters</b>	
<ul style="list-style-type: none"> <li>NDA and Regulatory permissioning to enter Care and Maintenance State</li> </ul>	



<b>Chapelcross - Location: Dumfries and Galloway, Area: 96 hectares</b>		
		<p><b>Current Key Milestones -</b>  <b>2017-23</b> – Interim Care and Maintenance  <b>2028</b> – Site enters Care and Maintenance  <b>2085</b> – Final site clearance commences  <b>2095</b> – Final site clearance achieved</p> <p><b>Status of land</b>  All 96 hectares remain covered by the nuclear site licence</p>

Top left: Chapelcross site, Top right: Fuel Free Verification Complete

<b>2014 – 2015 Key Activities</b>	
<b>SR</b>	Decommissioning and demolition activities in preparation for entry into Care and Maintenance
	Continue bulk asbestos removal from third and fourth reactor buildings
<b>2014 – 2015 NDA and Regulatory Matters</b>	
	<ul style="list-style-type: none"> <li>NDA and Regulatory permissioning in support of the Care and Maintenance entry definitions and transitional arrangements</li> </ul>
<b>2015 – 2017 Planned Key Activities</b>	
<b>SR</b>	Completion of bulk asbestos removal from the third and fourth reactor buildings completed
	All ILW retrieved and passively stored
	Ponds drained and stabilised
	Continue hazard reduction activities towards Interim Care and Maintenance
<b>2015 – 2017 NDA and Regulatory Matters</b>	
	<ul style="list-style-type: none"> <li>NDA and Regulatory permissioning in support of the Care and Maintenance entry definitions and transitional arrangements</li> </ul>

<b>Dungeness A - Location: Kent, Area: 20 hectares</b>		
		<p><b>Current Key Milestones -</b>  <b>2019-23</b> – Interim Care and Maintenance  <b>2027</b> – Site enters Care and Maintenance  <b>2087</b> – Final site clearance commences  <b>2097</b> – Final site clearance achieved</p> <p><b>Status of land</b>                  All 20 hectares remain covered by the nuclear site licence</p>

*Top left: Dungeness A site, Top right: Deplanting work at Dungeness*

<b>2014 – 2015 Key Activities</b>	
<b>SR</b>	Completion of the clearance of the south area of the site
	Decommissioning and demolition activities in preparation for entry into Care and Maintenance

<b>2014 – 2015 NDA and Regulatory Matters</b>	
	<ul style="list-style-type: none"> <li>NDA and Regulatory permissioning in support of the Care and Maintenance entry definitions and transitional arrangements</li> </ul>

<b>2015 – 2017 Planned Key Activities</b>	
<b>SR</b>	Continued hazard reduction activities towards interim Care and Maintenance
	Ponds drained and stabilised

<b>2015 – 2017 Regulatory Matters</b>	
	<ul style="list-style-type: none"> <li>NDA and Regulatory permissioning in support of the Care and Maintenance entry definitions and transitional arrangements</li> </ul>

**Hinkley Point A - Location: Somerset, Area: 19 hectares**



**Current Key Milestones -**

- 2025** – Site enters Care and Maintenance
- 2081** – Final site clearance commences
- 2090** – Final site clearance achieved

**Status of land**

19 hectares remain covered by the nuclear site licence

Top left: Hinkley Point A site, Top right: Asbestos Removal at Hinkley Point A

**2014 – 2015 Key Activities**

**SR**

Commence FED retrieval activities and establishment of buffer storage arrangements

Reactor 2 ponds drained and stabilised

**2014 – 2015 NDA and Regulatory Matters**

- NDA and Regulatory permissioning in support of the Care and Maintenance entry definitions and transitional arrangements

**2015 – 2017 Planned Key Activities**

**SR**



Interim Storage Facility (ISF) Inactive Commissioning Complete

Commissioning of IONSIV Cartridges waste processing complete

Reactor 1 ponds drained and stabilised

**2015 – 2017 NDA and Regulatory Matters**

- NDA and Regulatory permissioning in support of the Care and Maintenance entry definitions and transitional arrangements

<b>Hunterston A - Location: Ayrshire, Area: 15 hectares</b>		
		<p><b>Current Key Milestones -</b>  <b>2022</b> – Site enters Care and Maintenance  <b>2071</b> – Final site clearance commences  <b>2080</b> – Final site clearance achieved</p> <p><b>Status of land</b>  All 15 hectares remain covered by the site licence</p>

*Top left: Hunterston A site, Top right: Hunterston contaminated land remediation*

<b>2014 – 2015 Key Activities</b>	
<b>SR</b>	Progressing of ILW retrievals, processing and storage activities
	Completion of the pond wall surfaces stabilisation

<b>2014 – 2015 Regulatory Matters</b>	
<ul style="list-style-type: none"> <li>NDA and Regulatory permissioning in support of the Care and Maintenance entry definitions and transitional arrangements</li> </ul>	

<b>2015 – 2017 Planned Key Activities</b>	
<b>SR</b>	Continue ILW retrievals, processing and storage activities
	Completion of the pond floor surfaces stabilisation
	Completion of Solid ILW Encapsulation (SILWE) civil construction

<b>2015 – 2017 NDA and Regulatory Matters</b>	
<ul style="list-style-type: none"> <li>NDA and Regulatory permissioning in support of the Care and Maintenance entry definitions and transitional arrangements</li> </ul>	

<b>Oldbury - Location:</b> South Gloucestershire, <b>Area:</b> 51 hectares		
		<p><b>Current Key Milestones -</b>  <b>2027</b> – Site enters Care and Maintenance  <b>2092</b> – Final site clearance commenced  <b>2101</b> – Final site clearance achieved</p> <p><b>Status of land</b>  <b>De-licensed:</b> 35 hectares (86 acres) of the site (approximately 69%) has been de-licensed  <b>De-designation:</b> Modification of Designating Direction signed by the Minister in January 2012</p>



Top left: Oldbury site, Top right: Oldbury Removes Generator Transformer

<b>2014 – 2015 Key Activities</b>	
<b>SR</b>	Preparations for decommissioning and hazard reduction
<b>SF</b>	Continue reactor defuelling in line with MOP9 ( <i>ref 5</i> )

<b>2014 – 2015 NDA and Regulatory Matters</b>
<ul style="list-style-type: none"> <li>• Defuelling in line with ONR and EA requirements</li> </ul>

<b>2015 – 2017 Planned Key Activities</b>	
<b>SR</b>	Continue preparations for decommissioning and hazard reduction
<b>SF</b>	Complete defuelling in line with MOP9 ( <i>ref 5</i> )

<b>2015 – 2017 NDA and Regulatory Matters</b>
<ul style="list-style-type: none"> <li>• Fuel free verification agreed with Office for Nuclear Regulation (ONR)</li> <li>• NDA and Regulatory permissioning in support of the Care and Maintenance entry definitions and transitional arrangements</li> </ul>

<b>Sizewell A - Location: Suffolk, Area: 14 hectares</b>		
		<p><b>Current Key Milestones -</b>  <b>2027</b> – Site enters Care and Maintenance  <b>2088</b> – Final site clearance commences  <b>2097</b> – Final site clearance achieved</p> <p><b>Status of land</b>  All 14 hectares remain covered by the nuclear site licence</p>



Top left: Sizewell A site, Top right: Defuelling activities continue at Sizewell A

<b>2014 – 2015 Key Activities</b>	
<b>SR</b>	Preparations for decommissioning and hazard reduction
<b>SF</b>	Complete defuelling in line with MOP9 ( <i>ref 5</i> ) – all fuel offsite

<b>2014 – 2015 NDA and Regulatory Matters</b>	
<ul style="list-style-type: none"> <li>• Defuelling in line with ONR and Environment Agency (EA) requirements</li> <li>• Fuel free verification agreed with ONR</li> </ul>	

<b>2015 – 2017 Planned Key Activities</b>	
<b>SR</b>	Continued hazard reduction activities towards Care and Maintenance
	Commencement of FED Retrievals
	Interim Storage Facility Operational

<b>2015 – 2017 NDA and Regulatory Matters</b>	
<ul style="list-style-type: none"> <li>• NDA and Regulatory permissioning in support of the Care and Maintenance entry definitions and transitional arrangements</li> </ul>	

<b>Trawsfynydd - Location:</b> Gwynedd, North Wales, <b>Area:</b> 15 hectares		
		<p><b>Current Key Milestones -</b>  <b>2016</b> – Site enters Care and Maintenance  <b>2027</b> – Safestore completed  <b>2074</b> – Final site clearance commences  <b>2083</b> – Final site clearance achieved</p> <p><b>Status of land</b>  All 15 hectares remain covered by the nuclear site licence</p>



*Top left:* Trawsfynydd site, *Top right:* Inspection of Trawsfynydd reactor building

<b>2014 – 2015 Key Activities</b>	
<b>SR</b>	Decommissioning and demolition activities in preparation for entry into Care and Maintenance
	Active waste vaults – completion of ILW solid retrievals and processing
	Ponds suitable for Interim End State entry
	Progressing of encapsulation of FED

<b>2014 – 2015 NDA and Regulatory Matters</b>
<ul style="list-style-type: none"> <li>• NDA and Regulatory permissioning in support of the Care and Maintenance entry definitions and transitional arrangements</li> </ul>

<b>2015 – 2017 Planned Key Activities</b>	
<b>SR</b>	Decommissioning and demolition activities in preparation for entry into Care and Maintenance
	Completion of FED retrievals and encapsulation
	All ILW Passively Stored
	Interim State Achieved (except Safestore Height Reduction and Cladding)
<b>CE</b>	Completion of transitional management arrangements for Care and Maintenance state

<b>2015 – 2017 NDA and Regulatory Matters</b>
<ul style="list-style-type: none"> <li>• NDA and Regulatory permissioning to enter Care and Maintenance</li> </ul>

<b>Wylfa - Location: Anglesey, Area: 21 hectares</b>		
		<p><b>Current Key Milestones -</b>  <b>2025</b> – Site enters Care and Maintenance  <b>2096</b> – Final site clearance commences  <b>2105</b> – Final site clearance achieved</p> <p><b>Status of land</b>            All 21 hectares remain covered by the nuclear site licence</p>

Top left: Wylfa site, Top right: Periodic Safety Review case for Wylfa submitted to the ONR on 27 September 2013

<b>2014 – 2015 Key Activities</b>	
<b>SF</b>	Defuelling activities in line with MOP9 (ref 5)
<b>BO</b>	Continued electricity generation


<b>2014 – 2015 NDA and Regulatory Matters</b>
<ul style="list-style-type: none"> <li>NDA and Regulatory approval to enable continued optimisation of electricity generation</li> </ul>

<b>2015 – 2017 Planned Key Activities</b>	
<b>SR</b>	Preparations for decommissioning and hazard reduction
	Interim Storage Facility Operational
<b>SF</b>	Commencement of reactor bulk defuelling in line with MOP9 (ref 5)

*Note: Continued optimisation of electricity generation up to December 2015 is subject to ONR acceptance of the Periodic Safety Review (PSR) and DECC acceptance of the Business Case.*

<b>2015 – 2017 NDA and Regulatory Matters</b>
<ul style="list-style-type: none"> <li>Fuel free verification agreed with ONR</li> <li>NDA and Regulatory permissioning in support of the Care and Maintenance entry definitions and transitional arrangements</li> </ul>





<b>Research Sites Restoration Limited</b>	
 <b>Research Sites Restoration Ltd</b>	<p>Research Sites Restoration Ltd (RSRL) is the SLC responsible for the operation of the Harwell and Winfrith sites.</p> <p>The current PBO of the company is Babcock International Group (BIG). Share transfer to Cavendish Fluor Partnership will take place in September 2014.</p>
	<p><b>Planned expenditure for 2014/2015 - £70.5 million</b></p>

<b>2014 – 2015 Key Activities</b>	
<b>IWM</b>	Delivery of the RSRL element of the estate-wide LLW Management Plan
<b>CE</b>	Complete transition to the new PBO following competition
	Support SME organisations by increasing overall spend with them to 20%
<b>SR</b>	Continuation of Estate Decommissioning and Demolition Activities

<b>2015 – 2017 Planned Key Activities</b>	
<b>SR</b>	Care and Maintenance of redundant reactors and decommissioning of further facilities
	Continuation of Estate Decommissioning and Demolition Activities
<b>NM</b>	Continue with the programme for the transfer of nuclear materials

<b>2014 – 2015 NDA and Regulatory Matters</b>	
<ul style="list-style-type: none"> <li>NDA and Regulatory permissioning in support of the Interim End State Definition and arrangements for Winfrith</li> <li>NDA and Regulatory permissioning in support of the transfer of Nuclear Materials</li> </ul>	



<b>2015 – 2017 NDA and Regulatory Matters</b>	
<ul style="list-style-type: none"> <li>NDA and Regulatory permissioning in support of the Winfrith Interim End State</li> <li>NDA and Regulatory permissioning in support of RSRL Decommissioning and Demolition activities</li> </ul>	

<b>Harwell - Location: Oxfordshire, Area: 110 hectares</b>	
	<div style="display: flex; justify-content: space-between;"> <div style="width: 45%;">  </div> <div style="width: 50%;"> <p><b>Current Key Milestones -</b></p> <ul style="list-style-type: none"> <li><b>2023</b> - Primary facilities decommissioning complete</li> <li><b>2025</b> - Reactor decommissioning complete</li> <li><b>2027</b> - Interim State achieved</li> <li><b>2064</b> - Final site clearance achieved</li> </ul> <p><b>Status of land</b></p> <p><b>De-licensed:</b> 18 hectares (44 acres) of the site (approximately 16%) has been de-licensed.</p> <p><b>De-designation:</b> Modification to Designating Direction signed by Minister in December 2012.</p> </div> </div>

Top left: Harwell site, Top right: Decommissioning work underway at Harwell

<b>2014 – 2015 Key Activities</b>	
<b>SR</b>	Care and Maintenance of redundant reactors and other facilities
	Decommissioning of redundant facilities
<b>NM</b>	Implementation of the programme for the transfer of nuclear materials
<b>IWM</b>	Recovery, processing and packaging of solid ILW


<b>2015 – 2017 Planned Key Activities</b>	
<b>SR</b>	Care and Maintenance of redundant reactors and other facilities
<b>NM</b>	Continue with the programme for the transfer of nuclear materials



<b>Winfrith - Location: Dorset, Area: 88 hectares</b>		
		<p><b>Current Key Milestones -</b>  <b>2021</b> - DRAGON reactor complex decommissioning complete  <b>2021</b> - Steam Generating Heavy Water Reactor (SGHWR) complex decommissioning complete  <b>2021</b> – Interim End State achieved</p> <p><b>Status of land</b>  <b>De-licensed:</b> 10 hectares (24 acres) of the site (approximately 12%) has been de-licensed.</p>

*Top left:* Winfrith site, *Top right:* Decommissioning work underway at the DRAGON reactor at Winfrith

<b>2014 – 2015 Key Activities</b>	
<b>SR</b>	DRAGON Reactor –Integrated Scheme Design Completed
	SGHWR – Decommissioning of the Primary Containment Areas
	SGHWR – Completion of the Contract Award for Reactor Core Detailed Scheme Design & Build

<b>2015 – 2017 Planned Key Activities</b>	
<b>SR</b>	Continued progress towards Winfrith Interim End State
	SGHWR – commence the detailed design to remove the reactor core
	DRAGON – Continue reactor decommissioning
	SGHWR – Completion of Primary Containment Decommissioning Activities

<b>Dounreay Site Restoration Limited</b>	
 <p><b>Dounreay Site Restoration Ltd</b></p>	<p>Dounreay Site Restoration Ltd (DSRL) is the SLC responsible for the decommissioning of the Dounreay site.</p> <p>The current PBO is Cavendish Dounreay Partnership Limited.</p> <p>Note: Name changed from 'Babcock Dounreay Partnership'</p>
	<p><b>Planned expenditure for 2014/2015 - £171.9 million</b></p>

<b>Dounreay - Location:</b> Caithness, Scotland, <b>Area:</b> 67 hectares (incl 12 hectares designated for the LLW facility)		
		<p><b>Current Key Milestones -</b></p> <p><b>2014</b> – LLW facility commences operation</p> <p><b>2017</b> – Dounreay Fast Reactor (DFR) all liquid metal residues destroyed</p> <p><b>2018</b> – Prototype Fast Reactor (PFR) liquid metal residues destroyed</p> <p><b>2020</b> – All material for disposal removed from shaft</p> <p><b>2021</b> – PFR dismantled</p> <p><b>2023-2025</b> – Interim End State achieved in this timeframe</p> <p><b>Status of land</b></p> <p>55 hectares remain covered by the nuclear site licence</p>

Top left: Dounreay Fast Reactor, Top right: Prototype Fast Reactor


<b>2014 – 2015 Key Activities</b>	
<b>SR</b>	Complete the characterisation and remediation of the south-west corner of the site
	Closure of the south-west corner of the site
	Characterisation and remediation of any contamination found off-site which emanated from the site
	Landfill 42 post closure safety case approved
	Demolition of the shaft cover building
<b>SF</b>	Completion of all out of reactor DFR breeder fuel shipments to Sellafield
<b>NM</b>	Commence exotic fuel movements to Sellafield
<b>IWM</b>	LLW facility operational including the grouting plant
	Completion of the Material Test Reactor raffinate immobilisation
	Completion of the construction of the encapsulation facility

<b>2014 – 2015 Regulatory Matters</b>
<ul style="list-style-type: none"> <li>Regulatory approval for the Transport Safety and Transport Security plans to move DSRL exotic fuels</li> </ul>

<b>2015 – 2017 Planned Key Activities</b>	
<b>SR</b>	Decontamination of PFR pond suitable for final disposition
	Completion of Post Operational Clean Out (POCO) for building housing underground tanks of raffinate
	PFR Irradiated Fuel material transferred to spent fuel store
<b>SF</b>	Completion of removal of PFR spent fuel cans from the buffer store and pond matrix
	Construction of new fuel characterisation facilities for the characterisation of materials complete
	Complete the removal of all fuels from DFR
<b>IWM</b>	Completion of the DFR raffinate immobilisation
	Completion of PFR raffinate immobilisation
	Shaft and Silo Headworks for removal of waste from Shaft and Silo are operational

<b>2015 - 2017 Regulatory Matters</b>
<ul style="list-style-type: none"> <li>• ONR consent to Pre-operational Safety Report for Shaft Retrieval Operations</li> </ul>

### Low Level Waste Repository Limited

	<p>Low Level Waste Repository (LLWR) Limited is the SLC responsible for both the operation of the LLW site near the village of Drigg in Cumbria and the delivery of the National Low Level Waste Programme on behalf of the NDA.</p> <p>The PBO of the company is UK Nuclear Waste Management Limited.</p>
	<p><b>Planned expenditure for 2014/2015 - £51.5 million</b></p>

### LLWR - Location: Cumbria, Area: 110 hectares



#### Current Key Milestones

**2014** – Environmental Permit and Planning approval  
**2018** – Plutonium Contaminated Material (PCM) facilities removal complete  
**2007-55** – Engineered vaults construction  
**2080** – Final site closure achieved

#### Status of land

All 110 hectares remain covered by the nuclear site licence

Top left: Aerial view of Vaults 8 and 9, Top right: VLLW disposal at waste landfill


### 2014 – 2015 Key Activities

<b>SR</b>	Ongoing site preparation for phased construction of final cap for trenches 1 to 7 and for Vault 8
	Ongoing decommissioning of PCM facilities
	Environmental Permit and Planning approval
<b>IWM</b>	Continue segregated waste, treatment and disposal services in line with UK LLW Strategy
	Work with consigning SLCs to improve waste forecasts and the waste inventory
	Maintain the momentum of the Supply Chain investment in waste treatment arrangements
	Delivery of the National LLW Programme to optimise LLW Strategy Implementation
<b>CE</b>	Support Small & Medium Enterprise organisations by increasing overall spend with them to 20%
	Continue to pursue overall cost savings in delivery of the Lifetime Plan

### 2014 – 2015 Regulatory Matters

- Demonstrate conduct of operations and maintenance improvements to ONR
- Support Environment Agency in the LLWR environmental permit consultation process
- Determination of the site optimisation and closure works planning application


<b>2015 – 2017 Planned Key Activities</b>	
<b>SR</b>	Ongoing site preparation for phased construction of the final cap for trenches 1 to 7 and Vault 8
	Ongoing decommissioning of PCM facilities
<b>IWM</b>	Continue segregated waste, treatment and disposal services in line with UK LLW Strategy
	Work with consigning SLCs to improve waste forecasts and inventory
	Maintain the momentum of the Supply Chain investment in waste treatment arrangements
	Delivery of the National LLW Programme to optimise LLW Strategy Implementation

<b>Springfields Fuels Limited</b>	
	<p>Springfields is a nuclear fuel manufacturing site and is located near Preston in Lancashire. The site is operated by Springfields Fuels Limited (SFL) and used to manufacture a range of fuel products for both UK and international customers and decommissioning historic uranic residues and redundant facilities.</p> <p>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 NDA to address historic liabilities ongoing prior to the sale.</p>
<b>Planned expenditure for 2014/2015 - £50 million</b>	

<b>2014 – 2015 Key Activities</b>	
<b>SR</b>	Continue the Post Operational Clean Out (POCO) and decommissioning of redundant areas
<b>NM</b>	Processing of historic residues to recover uranium for return to the nuclear fuel cycle

<b>2015 – 2017 Planned Key Activities</b>	
<b>SR</b>	Continue the POCO and decommissioning of redundant areas
<b>NM</b>	Continue to clear uranic residues in the uranium recovery plants



<b>Capenhurst Nuclear Services</b>	
	<p>The Capenhurst site is located near Ellesmere Port in Cheshire, and was formerly home to a uranium enrichment plant and associated facilities that ceased operation in 1982.</p>
	<p>In November 2012 the site was transferred to URENCO, owners of the adjacent licensed site with amalgamation into a single nuclear licence. Existing activities undertaken by Sellafield Ltd have now been assigned to URENCO.</p>
	<p>An agreement has been signed for processing of NDA owned legacy materials.</p>
	<p>NDA and URENCO have also signed an agreement for the processing of Government owned by-product/legacy material from uranium enrichment (known as "Tails") through URENCO's Tails Management Facility.</p>
	<p>It is anticipated that this agreement will reduce NDA's net liabilities for managing and clearing the site while also paving the way for URENCO to invest in new facilities as required in order to meet future customer demand.</p>
	<p><b>Planned expenditure for 2014/2015 - £20.8 million</b></p>

<b>2014 – 2015 Key Activities</b>	
<b>SR</b>	Continue the storage of uranic material
	Continue the POCO and decommissioning of redundant areas
	Preparation of the Reference Design for the Legacy Cylinder Facility

<b>2015 – 2017 Planned Key Activities</b>	
<b>SR</b>	Continue the storage of uranic material
	Continue the POCO and decommissioning of redundant areas
	Preparation of the Detailed Design for the Legacy Cylinder Facility

# NDA

## Nuclear Decommissioning Authority

The Energy Act 2004 (*ref 6*) transferred the assets and liabilities of all the sites included in this Business Plan to the NDA. The NDA has six offices located across the UK with its headquarters in Cumbria. The NDA acts as a strategic authority.

Delivery of the NDA's mission is primarily through the SLCs. The NDA's role is:

- **Strategy** – development, long-term scenario planning and options development
- **Planning** – securing and allocation of funding, development of plans and options
- **Incentivisation** – designing and implementing the right contract models, incentivisation principles and processes to achieve the required outcomes
- **Sanctioning** – sanctioning of major programmes and projects and post investment appraisals
- **Performance Management** – performance monitoring, performance and financial reporting, deep dive assurance reviews

<b>2014 – 2015 Key Activities</b>	
<b>SR</b>	Prioritisation of funding for high risk and hazard legacy waste facilities
	Continue working with Regulators and Government to determine institutional controls appropriate to restoration of nuclear sites
<b>NM</b>	Continue to support the development of Government policy for the management of nuclear materials and provide advice to Government.
<b>CE</b>	Review of NDA Strategy in preparation for consultation on Strategy III
	Prepare Contract Management Plan and transition to the new target cost contract for Magnox & RSRL
	Move into the second term of the Sellafield contract
	Approval of the Information Governance Programme (IGP) business case and the establishment of the implementation programme
	Deliver NDA benchmarking programme to support and complete the Sellafield Performance Plan 2014
	Optimise Priority Programme and Projects reports and review cross-estate learning from experience and improvement
	Continue to ensure the sites implement the relevant elements of the ONR's Fukushima recommendations across the estate
	Deliver the risk management learning and development capability programme within the NDA estate
	Ensure output of the collaboratively funded innovation projects with Technology Strategy Board, DECC and Engineering & Physical Sciences Research Council (EPSRC) is collected and shared for maximum benefit to NDA estate and supply chain
	Further develop strategies, policies and actions for NDA's Internal Environmental Management process which aim to deliver our contributions to DECC's Greening Government Commitments target reductions
	Support to Radioactive Waste Management Limited in becoming a wholly owned subsidiary
	Maximise the use of resources and protect the skills base by supporting Transition across the site license companies and in particular the accelerated sites at Magnox
	Support Small & Medium Enterprise organisations by supporting the SLCs in increasing their overall spend to 20%
Embedding the Shared Service Alliances Strategy into common practice within the NDA estate	

**Nuclear Decommissioning Authority**  
Business Plan 2014 – 2017

	Pre-recess filing of unqualified NDA accounts and provision of support to allow DECC to file consolidated accounts for 2013/2014
	Review of the business planning timetable
	Support to UK Trade & Investment in strengthening and developing the NDA's position in Japan and overseas markets

<b>2015 – 2017 Planned Key Activities</b>	
<b>BO</b>	Continued delivery of enabler activities agreed between NDA, Sellafield Ltd and NMP as the key parts of the prioritised Sellafield Excellence Plan
<b>NM</b>	Continue to support the development of Government policy for the management of nuclear materials and provide advice to Government.
<b>CE</b>	Continued implementation of the Sellafield Contract second term
	Delivery of the Information Governance Programme
	Ensure the sites continue to apply National Objectives Requirements Model (NORMS) to security arrangements
	Obtain ISO 9001 & 14001 re-certification
	Further develop strategies, policies and actions for NDA's internal environmental management process which aim to deliver our contributions to DECC's Greening Government Commitments target reductions
	Mid-term review of LLWR contract and development of options for contract extension at Sellafield
	Complete a benefits realisation of Magnox & RSRL competition and follow up on the Dounreay benefits realisation
	Publication of Strategy III
	Preparations for the next Spending Review
	National Nuclear Archive operational

## NDA Subsidiary Companies

The NDA has a number of subsidiary companies to manage a range of business interests. The following section describes the planned activities for our key operating subsidiaries for the next three years.

### Radioactive Waste Management Limited

Government has made the NDA the implementing organisation for geological disposal of Higher Activity Waste (HAW); this includes both planning and delivery. On 1 April 2014 NDA established Radioactive Waste Management Directorate into a wholly owned subsidiary, Radioactive Waste Management Ltd. The subsidiary is running the geological disposal programme and is being developed into a competent delivery organisation which, as a separate legal entity, will be able to apply for and hold regulatory permissions in due course. We will continue to work with Government to implement the Managing Radioactive Waste Safely (MRWS) programmes, working with interested communities and other stakeholders.

This approach does not apply in Scotland. The Scottish Government has published “Scotland’s Higher Activity Radioactive Waste Policy 2011”. Scottish Government Policy states that:

*“The long-term management of higher activity radioactive waste should be near-surface facilities. Facilities should be located as near to the site where the waste is produced as possible”.*

Radioactive Waste Management Limited’s mission is to deliver geological disposal and provide radioactive waste management solutions and has the following objectives:

- Engage with national and local Governments and communities to identify a geological disposal facility site
- Develop the specification, design, safety case and environmental and sustainability assessments for the disposal system and obtain regulatory support
- In conjunction with waste producers, identify and deliver solutions to optimise the management of Higher Activity Waste
- Develop and maintain an effective organisation and secure resources to deliver the Geological Disposal Facility programme
- Obtain and maintain stakeholder support for our activities
- Deliver a focused technical programme to support geological disposal and optimised packaging solutions
- Deliver sustainable, innovative and cost effective solutions that have public support and are in the best interest of the UK

#### 2014 – 2015 Key Activities

<b>IWM</b>	Lead work on the national campaign to raise awareness of the GDF siting process
	Deliver a robust technical programme to address knowledge gaps arising from our design and safety assessment work, participating in appropriate European and international projects
	Engage with stakeholders to ensure the issues management process meets stakeholders' needs
	Work pro-actively with waste producers, planning for and delivering disposability assessments for their range of wastes
	In conjunction with the waste producers, lead a programme of work on prioritised upstream optioneering opportunities
	Establish working arrangements to support the delivery of RWM Limited’s mission as a wholly owned NDA subsidiary

**2014 – 2015 Regulatory Matters**

- As a 'Prospective SLC' Radioactive Waste Management Limited will continue to be subject to voluntary scrutiny by regulators
- Engagement with regulators will be influenced by the implementation of the three year organisational development action plan agreed in 2013/14

**2015 – 2017 Planned Key Activities**

<b>IWM</b>	Lead work to engage with communities, as appropriate, in the learning phase of the new GDF siting process
	Continue to support, and lead where appropriate, European and other international projects to expand Radioactive Waste Management Limited's knowledge base in needs driven areas of technology, science and engineering
	Continue to work pro-actively with waste producers to deliver planned disposability assessments for their range of wastes
	In conjunction with the waste producers, develop a further programme of work on prioritised upstream optioneering opportunities and deliver the Radioactive Waste Management Limited's commitments in the current upstream optioneering programme
	Subject to the outcome of the MRWS siting process consultation and satisfactory progress with the learning phase, identify and secure resources for the focussing phase of the MRWS siting process

## Direct Rail Services Limited

Direct Rail Services (DRS) Limited was established in 1995 to provide a rail service for the transportation of Nuclear Material. As part of a broader portfolio including Commercial Freight, the key focus for DRS over the next three years is to grow profitably in all strategically identified markets with particular focus on supplying safe, secure and reliable services to the nuclear transport market.

### 2014 – 2017 Planned Key Activities

- Continue to support all NDA facing activities in order to remain the supplier of choice in the nuclear industry and secure DRS' position as leader in the nuclear rail transport market
- Focus on developing business opportunities in the following sectors in accordance with the agreed strategy:
  - NDA Estate Support
  - Domestic and Port Intermodal
  - Passenger Train Operating Company support
  - Major Infrastructure support including Network Rail
- Capability in place for first mixed waste transport (combined ILW/LLW/spent fuel)
- Renewal of the Transport Contract for EDF Spent Fuel
- Delivery of replacement Flask Carrying Vehicles for NDA
- Implementation of Driver Licensing Regulations
- Completion of Kingmoor office upgrade

## NDA Properties Limited

NDA Properties Limited primarily acts as a property management company for non-operational properties outside the nuclear licensed site boundaries, in accordance with the NDA's Land and Property Management Strategy. Over the next three years, NDA Properties will continue to optimise use of, or dispose of these assets, for the benefit of the NDA.

### 2014 – 2017 Planned Key Activities

- Complete the Albion Square office development in Whitehaven, providing offsite accommodation for 1,000 Sellafield Limited employees.
- Initiate a programme of refurbishment of the Hinton House offices in Warrington to replace ageing and obsolete heating, ventilation and control infrastructure.
- Undertake construction of the National Nuclear Archive building in Caithness.
- Undertake development of offsite property assets within West Cumbria specifically required to support Sellafield decommissioning programme.
- Continue a programme of disposal of property assets surplus to the requirements of the NDA mission.

### **International Nuclear Services Limited**

International Nuclear Services (INS) Limited manages a large portfolio of UK and international contracts for nuclear fuel recycling and transport services on behalf of the NDA. INS operates its own subsidiary company, Pacific Nuclear Transport Limited (PNTL), the world's leading marine transporter of specialist nuclear materials.

Over the next three years, INS will increase its focus on the return of vitrified wastes to their country of origin. In addition INS will continue to provide a service to existing international companies whilst also developing opportunities for new commercial business both internationally and in support of the UK decommissioning programme.

#### **2014 – 2017 Planned Key Activities**

- Continue management of contracts with international customers for spent fuel business
- Manage uranium and plutonium services for international spent fuel business
- Transport nuclear materials, including spent fuel, Mixed Oxide (MOX) fuel, vitrified High Level Waste (HLW) internationally and shipments of materials under the US Government's Global Threat Reduction Initiative
- Support the NDA in the development and implementation of transport solutions to enable the UK decommissioning programme. In particular the movement of remaining nuclear materials at Dounreay to Sellafield for long term management alongside the Sellafield fuels inventory

### **Rutherford Indemnity Limited**

Rutherford Indemnity Limited is registered in Guernsey and is regulated by the Guernsey Financial Services Commission. The Company provides insurance cover for the NDA and its estate. Over the next three years, Rutherford will continue to focus on the provision of insurance cover, at competitive rates, to support the NDA programme, with particular focus on nuclear liability cover and provision of support for changes arising from expected revisions to the Nuclear Installations Act 1965.

#### **2014 – 2017 Planned Key Activities**

- Provide optimal insurance services to the NDA to support its estate-wide insurance programme and continue to exploit opportunities where Rutherford can help reduce overall cost of risk
- Support the NDA in relation to the new insurance requirements which will result from implementation of changes to the Paris and Brussels Conventions on nuclear third party liability
- Deliver target return on the investment portfolio of CPI + 2% over 5 years whilst limiting volatility and protecting Rutherford's ability to offer insurance on a cost effective basis

## Response to Consultation

The NDAs consultation on the 'Business Plan 2014-2017' completed on 24 January 2014, receiving 11 formal responses. Where applicable, comments have been used to amend the document to provide clarity on key activities, however there have been minimal changes.

The plan was well received with positive feedback once again on the layout and content. We strive to keep the plan concise with clear alignment between Strategic Themes and Programmes to assist the reader with an understanding of our mission.

We were once again asked to disaggregate the funding for socio-economic, skills, R&D and knowledge management, however due to the nature and calibre of the business cases we receive it is hard to judge the level of funding required, which would inevitably lead us to constrain tasks within the estate. By amalgamating these budgets it allows the NDA to optimise investment decisions across these important activities.

We received some comments with reference to the development and implementation of strategies for the management of Plutonium and Uranics. On Plutonium we will continue to support DECC as it develops its policy for managing separated Plutonium and more information can be found at <http://www.nda.gov.uk/documents/upload/Progress-on-approaches-to-the-management-of-separated-plutonium-position-paper-January-2014.pdf>

Whilst no strategic decision has been reached on Uranics we will continue to store the inventory safely and securely as a strategic reserve, repackaging, relocating and processing them where necessary. For more information please see <http://www.nda.gov.uk/documents/upload/Uranics-Credible-Options-Summary-Gate-A.pdf>

In reference on the Nuclear Industry should Scotland gain independence please see Scotland's white paper pages 347 and 407 - <http://82.113.138.107/00439021.pdf>

### **Changes since the draft plan.**

Due to the issues faced at Bradwell the scheduled date for the site to enter into effective Care and Maintenance has been impacted. Early indications are that the date is now September 2015 rather than March 2015, however, it should be noted that this is still approximately 12 years ahead of the original planned date prior to the MODP coming into effect.

Hinkley Point A's allocated funding has declined since the publication of the Draft Plan in December 2013. This decline reflects the slippage in the FED dissolution programme at Bradwell, which is currently behind schedule. Whilst the precise design and technology of the proposed FED dissolution facility at Hinkley Point has not been finalised, the operational experience of the FED dissolution at Bradwell will be reviewed and will inform the detailed design and build of the Hinkley facility.



## Glossary

AGR	Advanced Gas-Cooled Reactor	POCO	Post Operational Clean Out
ARAC	Annual Report and Accounts	PSR	Periodic Safety Review
BEPPS/DIF	Box Encapsulation Plant Product Store/Direct Import Facility	R&D	Research and Development
BIG	Babcock International Group	RSRL	Research Sites Restoration Limited
C&M	Care and Maintenance	RWM	Radioactive Waste Management Limited
DECC	Department of Energy and Climate Change	SEP	Silo Emptying Plant
DFR	Dounreay Fast Reactor	SGHWR	Steam Generating Heavy Water Reactor
DPA	Data Protection Act	ShEx	Shareholder Executive
DRS	Direct Rail Services	SILWE	Solid ILW Encapsulation
DSRL	Dounreay Site Restoration Limited	SIXEP	Site Ion Exchange Plant
EA	Environment Agency	SLC	Site Licence Company
EIR	Environmental Information Regulations	SME	Small and Medium Enterprises
ESC	Environmental Safety Case	SPP1	Sludge Packaging Plant 1
EPSRC	Engineering & Physical Sciences Research Council	SSG	Site Stakeholder Groups
FED	Fuel Element Debris	THORP	Thermal Oxide Reprocessing Plant
FOIA	Freedom of Information Act	UUK	URENCO UK Ltd
GDF	Geological Disposal Facility	WAGR	Windscale Advanced Gas Cooled Reactor
HAL	Highly Active Liquor		
HAW	Higher Activity Waste		
HLW	High Level Waste		
ICP	Integrated Change Programme		
IGP	Information Governance Programme		
ILW	Intermediate Level Waste		
INS	International Nuclear Services		
IS	Interim State		
ISF	Interim Storage Facility		
LCF	Legacy Cylinder Facility		
LLW	Low Level Waste		
LLWR	Low Level Waste Repository		
LoC	Letters of Compliance		
LP&S	Legacy Ponds and Silos		
MEBs	Multi Element Bottles		
MODP	Magnox Optimised Decommissioning Programme		
MOP	Magnox Operating Programme		
MOX	Mixed Oxide		
MRWS	Managing Radioactive Waste Safely		
NAO	National Audit Office		
NDPB	Non-Departmental Public Body		
NGO	Non-Governmental Organisations		
NMPL	Nuclear Management Partners Limited		
ONR	Office for Nuclear Regulation		
PAC	Public Accounts Committee		
PBO	Parent Body Organisation		
PCM	Plutonium Contaminated Material		
PFR	Prototype Fast Reactor		
PNTL	Pacific Nuclear Transport Limited		

## References

1. **Freedom of Information Act 2000**  
<http://www.legislation.gov.uk/ukpga/2000/36/contents>
2. **Data Protection Act (1998)**  
[http://www.ico.gov.uk/what\\_we\\_cover/data\\_protection.aspx](http://www.ico.gov.uk/what_we_cover/data_protection.aspx)
3. **Environmental Information Regulations (2004)**  
<http://www.opsi.gov.uk/si/si2004/20043391.htm>
4. **Magnox Optimised Decommissioning Programme (2010)**  
<http://www.magnoxsites.co.uk/UserFiles/File/publications/company%20information/MODPbrochure.pdf>
5. **Magnox Operating Programme 9**  
<http://www.nda.gov.uk/documents/upload/The-Magnox-Operating-Programme-MOP9.pdf>
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ISBN 978-1-4741-0201-8



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