Nuclear Decommissioning Authority Business Plan

2011-2014

Nuclear
Decommissioning
Authority

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2011-2014

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

March 2011

London: The Stationery Office £15.50

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ISBN: 9780108510540

Printed in the UK by The Stationery Office Limited
on behalf of the Controller of Her Majesty's Stationery Office

ID: 2423380 03/11

Printed on paper containing 75% recycled fibre content minimum.

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.

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NDA Business Plan 2011-2014
Published by the Nuclear Decommissioning Authority, March 2011

Foreword

This Business Plan has been approved by the Secretary of State jointly with the Scottish Ministers as required by the Energy Act (2004 *(ref 1).*

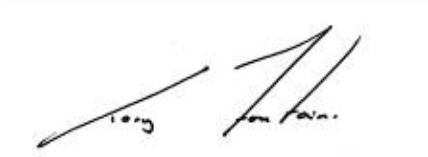
The importance of the NDA's decommissioning and clean-up mission has been recognised in the funding provided via our sponsoring UK Government department – Department of Energy and Climate Change (DECC), in the latest spending review. The direct grant provided by the UK Government – together with commercial income will allow an average expenditure of close to £3 billion per annum over the next four years. In the current tough economic environment of widespread cuts in funding across UK Government this represents a positive outcome for the joint working of all stakeholders over the last 18 months through the Spending Review (SR) process.

The full impact of the settlement on what can be achieved over the next three years will require further analysis over the coming months and it is likely there will have to be deferral of some scope that may have been anticipated to commence before the current economic dip. It is not anticipated that there will be major changes to the direction outlined in previous plans. We will see continued focus on high risk and hazard plants at Sellafield, the adoption of an optimised approach at Magnox, a new target cost commercial arrangement at Dounreay, the implementation of the Low Level Waste strategy at the Low Level Waste Repository (LLWR) and optimising the care and maintenance regime at Harwell and Winfrith.

The settlement represents a vote of confidence from Government in the mission of the NDA and all of the activities that sit behind it. Our response will be to sustain and strengthen our drive to deliver value for money and continued reduction in support and overhead costs. To deliver the promised work we must crystallise the improvements in efficiency and performance that underpin our funding settlement.

Our increasing focus on delivery has been reflected in the changes made to the NDA organisation in the last year. The NDA delivers its mission primarily through our SLC's, who will have increased delegated authorities to support this approach. The restructuring of the NDA Executive Team has been completed with the appointment of David Batters as Chief Financial Officer (CFO), Mark Lesinski as Executive Director – Delivery, Adrian Simper as Director – Strategy & Technology and Sean Balmer as Commercial Director.

Our long-term objectives and strategic direction are outlined in our March 2011 Strategy which has been approved by the Secretary of State jointly with the Scottish Ministers as required by the Energy Act (2004) *(ref 1)*.



Tony Fountain
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 1)* to ensure that the UK's 19 civil public sector nuclear sites are decommissioned and cleaned up safely and efficiently.

Our progress is monitored by the Shareholder Executive on behalf of our UK Government sponsoring department, DECC, and the Scottish Government who measure our performance against our Strategy and plans. DECC and the Scottish Government have a target to make tangible progress in decommissioning and clean-up demonstrated by a reduction in 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) in line with published NDA business plans. Progress on these activities is reported in our Annual Report and Accounts.

Delivery of the mission

Each of our 19 sites is operated by one of six 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, own the SLCs for the duration of their contract with the NDA and earn fee based on performance.

Our Funding

Funding Framework

We are funded by a combination of direct UK Government grant and income from commercial operations.

Government Funding

The latest Spending Review has secured outline UK Government funding for the next four years (April 2011 to March 2015) – See Appendix 5.

Commercial Income

Our commercial operations fall broadly into two areas:

- electricity generation and associated trading
- spent fuel management, including reprocessing and manufacture of Mixed Oxide Fuel (MOX)

The nature of our commercial activities means that we have to manage a degree of income volatility, largely due to our operations relying on ageing assets and infrastructure. Furthermore, this income will decline in future years as plants close and enter decommissioning. In the meantime, we will strive to maximise revenue from our existing assets and operations to help fund decommissioning and clean-up, thereby reducing the burden on the UK tax-payer. This will include optimising income from electricity generation, leasing property, selling land and other assets in response to market interest.

Prioritisation and allocation of funding

As commercial income declines, there will be an increasing reliance on direct UK Government funding where expenditure cannot be reduced. Within affordability constraints, we will seek to maintain progress and maximise value for money by focusing on the highest hazards and risks and by seeking to prioritise funding where possible, while 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, Security 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 2011/2012

This Business Plan sets out our anticipated income and expenditure for 2011/2012 in line with the settlement agreed in the 2010 Spending Review.

Our total planned expenditure for 2011/2012 is £2.9 billion, of which £2.0 billion will be funded by UK Government and £0.9 billion by income from commercial operations. Planned expenditure on site programmes will be £2.7 billion, while non-site expenditure is expected to be £0.2 billion. This non-site expenditure includes skills development, socio-economic, Research and Development (R&D), insurance and pensions costs, fees to SLCs, implementing geological disposal and NDA operating costs along with the other activities detailed in Appendix 5.

Our Approach to Strategy and Delivery

Building on our experience of the last few years, we now group our work under the following six strategic themes:

Site Restoration

- defines our approach to decommissioning and clean-up of redundant facilities and how we manage contamination in ground and groundwater. Restoration will drive our sites through a series of Interim States to a Site End State, at which point the NDA is able to release the site for other uses.

Spent Fuels

- defines our approach to managing the diverse range of spent nuclear fuels for which we have responsibility, including Magnox, oxide and exotic spent fuels.

Nuclear Materials

- defines our approach to dealing with the inventory of uranics and plutonium currently stored on some of our sites.

Integrated Waste Management

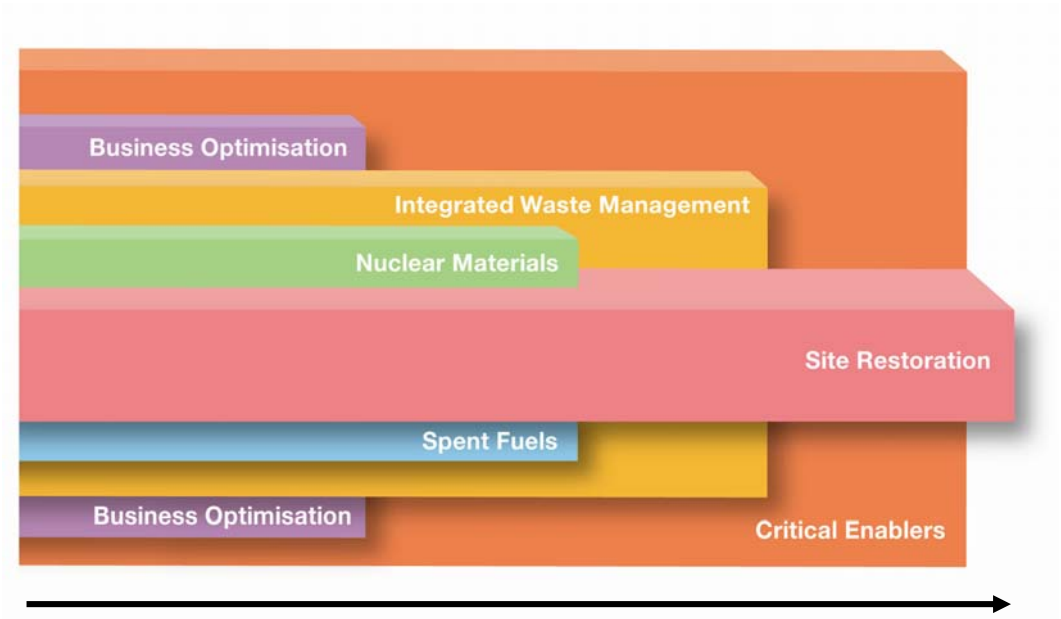
- considers how we manage all forms of waste arising from operating and decommissioning our sites.

Business Optimisation

- looks at how we maximise our commercial income, using our assets and capabilities to reduce the net cost of decommissioning and clean-up to the taxpayer.

Critical Enablers

- supports the overall delivery of our mission and, in some cases, reflect the supplementary duties assigned to the NDA by the Energy Act (2004) *(ref 1)*. In most cases these are not matters in which we have the lead role, but where we need to take a view and ensure that appropriate action is being taken.



The previous figure illustrates the interaction of the six strategic themes showing Site Restoration as the driving theme supported by Integrated Waste Management; the need to manage Spent Fuels and Nuclear Materials as an early part of Site Restoration; Business Optimisation raising revenues where appropriate; and with the entire mission underpinned by the Critical Enablers. Time passes from left to right.

This view of our activities means we can draw on the experience from across the entire estate to focus on new ways of tackling our priorities. This approach will help us in:

- taking a more holistic view of all our activities
- understanding the impact of different strategic scenarios, e.g. deferral or acceleration of work in certain areas
- monitoring and reporting of progress across our estate

Throughout this document, colour coding is used to indicate the strategic themes.

The Business Plan is structured to reflect the strategic themes and organising our work in this way has already provided clarity and a consistent basis for communicating with contractors and stakeholders.

There is a great deal of interdependence between its strategic themes. There is, therefore, limited discretion to stop activities under a particular theme without wider implications. This includes impacting critical national infrastructure that serves the wider nuclear industry such as electricity generation, fuel manufacture, reprocessing and waste treatment, storage and disposal services.

Strategic Themes Summary

Site Restoration

The objective of this theme is to restore our designated sites and release them for other uses.

Our priority is to remediate hazardous materials in the legacy ponds and silos at Sellafield. We will also decommission redundant facilities at Sellafield whilst maintaining 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, deliver Dounreay site to an Interim State and maintain Harwell and Winfrith in a safe and secure state.

Key deliverables for the year 2011/2012 are as follows:	
Embedding the new optimised approach for Magnox decommissioning	Magnox
Magnox Swarf Storage Silos – complete the construction of Retrievals Machine 2	Sellafield
Continue programme of asset improvements to manage ageing infrastructure of plant and buildings	Sellafield
Preparations for retrieval of Intermediate Level Waste (ILW) from the Active Waste Vaults	Berkeley
North and South Fuel Element Debris (FED) civils preparation works	Trawsfynydd
Complete the draining, decontamination of 'hotspots' and sealing of the Dounreay Fast Reactor (DFR) Fuel Storage Ponds	Dounreay

Spent Fuels

The objective of this theme is to ensure safe, secure and cost-effective lifecycle management of spent fuels.

We will manage all spent Magnox fuel to a safe and secure state and place all exotic fuels into a final disposition form. We will continue to use up the existing fuel load at Oldbury and Wylfa. On oxide fuels, we will continue to receive and manage fuel from EDF Energy* and seek to maximise value from our spent fuel management contracts.

Key deliverables for the year 2011/2012 are as follows:	
Continue to reprocess Magnox fuel	Sellafield
Continue to reprocess fuel through Thermal Oxide Reprocessing Plant (THORP)	Sellafield
Completion of defuelling in line with the Magnox Operating Programme (MOP) *(ref 2)*	Dungeness A
Continued defuelling in line with MOP requirements	Chapelcross / Sizewell A
Establish site capability for out of reactor Dounreay Fast Reactor (DFR) breeder fuel transfers to Sellafield	Dounreay

*Formerly British Energy

Nuclear Materials

The objective of this theme is to ensure safe, secure and cost-effective lifecycle management of our nuclear materials .

Key deliverables for the year 2011/2012 are as follows:	
Continue active commissioning of Sellafield Product and Residue Store (SPRS)	Sellafield
Continue to clear uranic residues in the uranium recovery plants	Springfields

Integrated Waste Management

The objective of this theme is to ensure that wastes are managed in a manner that protects people and the environment, now and in the future, in ways that comply with UK Government and Scottish Government policies and provide value for money. The NDA has been given responsibility for planning and implementing geological disposal in accordance with UK Government policy. This is delivered through RWMD.

Key deliverables for the year 2011/2012 are as follows	
Continue the construction of Evaporator D, complete sea delivery module and commence installation	Sellafield
Continue to process Highly Active Liquor (HAL) through the vitrification plant	Sellafield
Continue to export vitrified HAL to overseas customers	Sellafield
Submission of the Environmental Safety Case (ESC) to the Environment Agency (EA)	LLWR
Introduction of new Low Level Waste (LLW) packaging containers	LLWR
Work with consigning SLC's to further implement the LLW Strategy (ACCELS) - Acceleration of Element 2 Strategy	LLWR
Complete Design and start Phase 1 construction of the D3100 new LLW Repository	Dounreay
Review the generic waste package specifications against the 2010 Disposal System Safety Case (DSSC) in support of the GDF Programme	RWMD

Business Optimisation

The objective of this theme is 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 deliverables for the year 2011/2012 are as follows:	
Maximising generation within the constraints of available fuel and the MOP *(ref 2),* through operation at Oldbury to June 2011[1] and Wylfa Dec 2012	Magnox
Secure a future for Capenhurst that maximises overall value for money	NDA
Progress critical path activities to deliver the new rod line for the Mixed Oxide (MOX) plant	Sellafield

Critical Enablers

The objective of this theme is to provide the stable and effective implementation framework that enables the delivery of our mission.

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

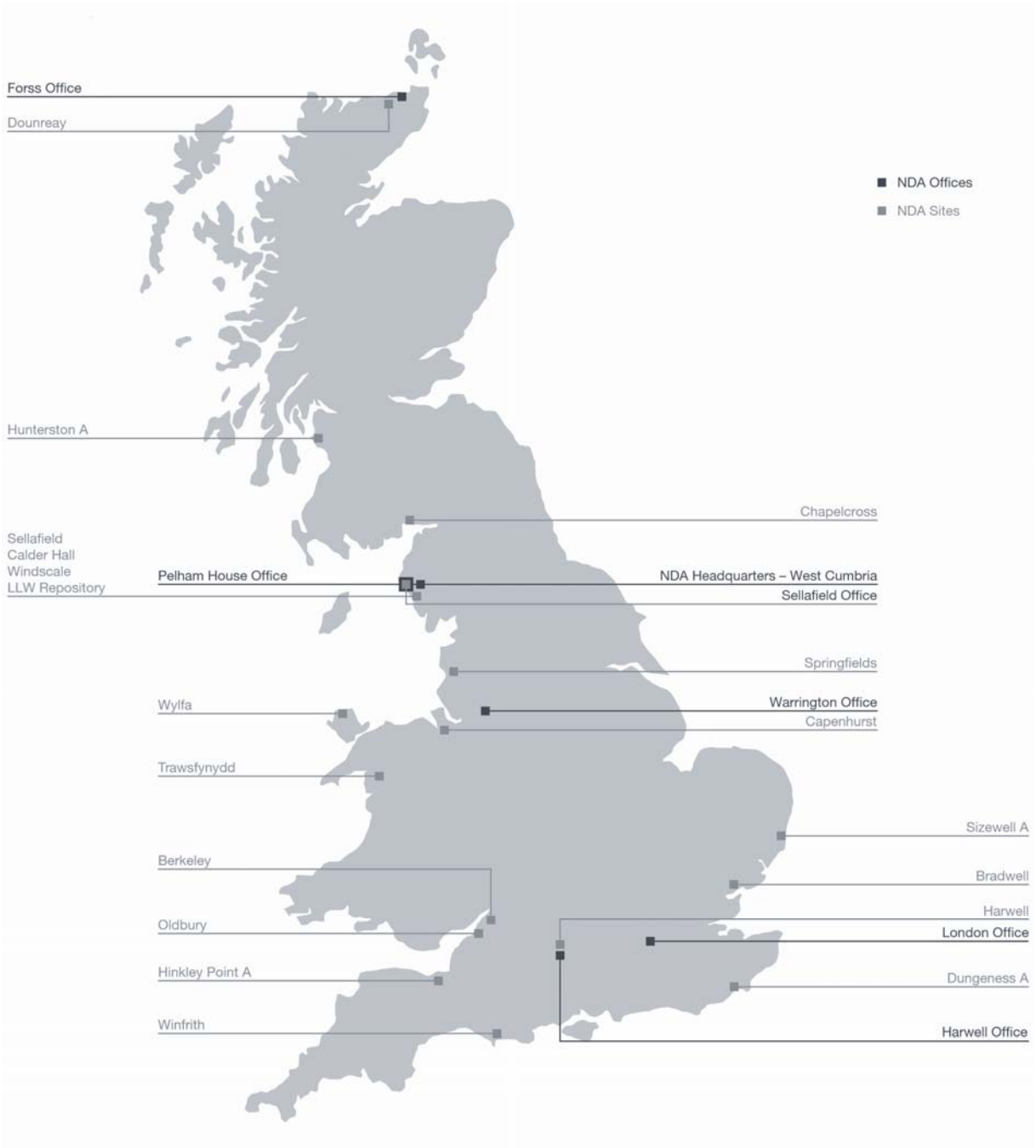
Key deliverables for the year 2011/2012 are as follows:	
Continued delivery of the Integrated Change Programme (ICP) to drive improved performance	Sellafield
Completion of all activities related to the formation of a Magnox single SLC	Magnox
Provide support to the NDA in the competition for a new Parent Body Organisation (PBO)	Dounreay

Support Costs

Support costs across the NDA estate comprise those costs not directly related to projects and cover such areas as site services, general support costs and stakeholder costs. The NDA is targeting a reduction in support costs across the entire estate so that we can focus spending on decommissioning and clean-up. The 2011/2012 target is a minimum of 10% reduction compared to the agreed 2009/2010 baseline.

[1] The opportunity to further extend generation at Oldbury is under development. Exploration of further Wylfa extension will also be carried out.

Appendix 1 – NDA Sites Location Map



Appendix 2 – The Six Site Licence Companies (SLCs)

Sellafield Limited	Sites	Page 14
Parent Body Organisation Nuclear Management Partners Limited (NMPL). Consortia made up of URS, AMEC and AREVA. **PBO Website - www.nuclearmanagementpartners.com** **SLC Website - www.sellafieldsites.com**	**Sellafield (incl Calder Hall)** **Windscale** **Capenhurst**	

Magnox Limited	Sites	Page 18
Parent Body Organisation Energy*Solutions* EU Ltd **PBO Website – www.energysolutions.com** **SLC Websites - www.magnoxnorthsites.com** **www.magnoxsouthsites.com**	**Berkeley** **Bradwell** **Chapelcross** **Dungeness A** **Hinkley Point A** **Hunterston A** **Oldbury** **Sizewell A** **Trawsfynydd** **Wylfa**	

Dounreay Sites Restoration Limited	Site	Page 30
Parent Body Organisation UKAEA Limited , now a member of Babcock International Group (BIG) PLC **PBO Website – www.babcock.co.uk** **SLC Website - www.dounreay.com**	**Dounreay**	

Research Sites Restoration Limited	Sites	Page 32
Parent Body Organisation UKAEA Limited, now a member of Babcock International Group (BIG) PLC **PBO Website** – **www.babcock.co.uk** **SLC Website** - **www.research-sites.com**	**Harwell** **Winfrith**	

Low Level Waste Repository Limited	Site	Page 35
Parent Body Organisation UK Nuclear Waste Management Limited (UKNWM). Consortia made up of URS, Studsvik, Areva and Serco Assurance. **SLC Website - www.llwrsite.com**	**LLW Repository**	

Springfield Fuels Limited	Site	Page 37
Parent Company Westinghouse Electric UK Limited, which is part of the Toshiba Group. **Parent Company Website - www.westinghousenuclear.com** **SLC Website - www.nuclearsites.co.uk**	**Springfields**	

Appendix 3 – Site Summaries

Sellafield Limited

Sellafield Limited is the SLC responsible for the operation of Sellafield (including Calder Hall), Capenhurst and Windscale. The current PBO of the company is Nuclear Management Partners Limited (NMPL).

Planned expenditure for 2011/2012 - £1,555 million

Sellafield (including Calder Hall)

Sellafield is located in Cumbria and has an area of 262 hectares covered by the nuclear site licence. It is a large, complex nuclear chemical facility that has supported the nuclear power programme since the 1940s and has undertaken work for a number of organisations, including the United Kingdom Atomic Energy Authority (UKAEA), the Ministry of Defence (MoD), BE and overseas customers. Operations at Sellafield include reprocessing of fuels removed from nuclear power stations; MOX fuel fabrication; and storage of nuclear materials and radioactive wastes. Calder Hall is located on the Sellafield site in Cumbria. It was the world's first commercial nuclear power station and started generating electricity in 1956. Generation ceased in 2003.

Windscale

Windscale is part of the Sellafield site in Cumbria. The site area is 14 hectares. It comprises three reactors, two of which were shut down in 1957. The third was closed in 1981. A fire damaged one of these reactors (Pile 1) in 1957, making its decommissioning a significant challenge.

Capenhurst

Capenhurst is located near Ellesmere Port in Cheshire, adjacent to Urenco (the Uranium Enrichment Company), and has an area of 32 hectares covered by the nuclear site licence. It is home to a uranium enrichment plant and associated facilities that ceased operation in 1982.

2011-2012 Key Activities

Site Restoration

- Progress critical path activities to the start of retrievals for legacy wastes, specifically:
    - Magnox Swarf Storage Silos – progress the design for the waste encapsulation and waste product transfer capability
    - Magnox Swarf Storage Silos – **complete** the construction of Retrievals Machine 2 and start factory acceptance testing
    - First Generation Magnox Storage Pond – completion of new skip handler tooling and completion of integration works testing
    - Pile Fuel Cladding Silo – commence stage 2 construction of the 'Superstructure' and control room
    - Pile Fuel Storage Pond – progress active commissioning of the local sludge treatment plant storage tanks
- Ongoing decommissioning and demolition of redundant facilities, specifically:
    - Progress critical path activities to deliver the replacement Separation Area Ventilation stack, which will enable the demolition of the First Generation Reprocessing plant ventilation stack
- Continue programme of asset improvements to manage ageing infrastructure of plant and buildings

Spent Fuels

- Continue to reprocess Magnox fuel
- Progress the capability to receive and reprocess DFR breeder fuel at Sellafield
- Continue to reprocess fuel through THORP; this includes fuel from EDF Energy as well as overseas oxide fuel

Manage Nuclear Materials

- Continue the safe storage of uranium
- Work on solutions to reduce the hazard associated with the uranium hexafluoride tails
- Continue active commissioning of SPRS
- Continue to process legacy uranium hexafluoride bottles

Integrated Waste Management

- Continue to process HAL through the vitrification plant
- Continue to export vitrified HAL to overseas customers
- Continue the construction of Evaporator D to provide additional evaporative capacity – complete critical path activities, specifically:
    - **Complete** sea delivery module for Evaporator D and commence installation
- Continue to retrieve and treat, for long-term storage, legacy flocculent from the flocculent storage tanks
- Continue to transfer legacy Plutonium Contaminated Material (PCM) to modern engineered stores
- Continue to process uranic residues
- Ongoing waste treatment activities to support both commercial operations and decommissioning, such as:
    - PCM processed through the Waste Treatment Complex (WTC)

Business Optimisation

- Sellafield MOX plant – progress critical path activities to deliver the new rod line

Critical Enablers

- Sellafield Integrated Change Programme (ICP) – continued delivery of the ICP improvement programme driving performance specifically:
    - New arrangements for the production of safety cases at Sellafield - pilot projects to be completed and new arrangements embedded
    - Increased mobility and flexibility of workforce
    - Flexible permissioning of work activities

2011–2012 Regulatory Matters

- Regulatory support to progress the development of strategic options for DFR and consolidation of nuclear materials
- Continued development of an appropriate process for monitoring progress against decommissioning milestones
- Continued delivery of HAL stock reduction
- Embedding the Safety Improvement Programme for the Leased Operations Facilities
- Development of Capenhurst site in line with NDA's Strategy
- Delivery of enhanced uranium hexafluoride management plan

2012–2014 Planned Key Activities

Site Restoration

- Pile Fuel Storage Pond – commence sludge and oxide fuel retrievals
- Continue to progress critical path activities to the start of retrievals for legacy wastes including:
    - First Generation Magnox storage pond – commence skip handler in pond commissioning
    - Magnox Swarf Storage Silo – pre-commissioning safety report **completed** for the Silo's Direct Encapsulation Plant
    - Pile Fuel Cladding Silo – construction of the 'Superstructure' **complete**
- Ongoing decommissioning and demolition of redundant facilities, specifically:
    - First Generation Reprocessing Plant – **complete** the construction of the Separation Area Ventilation stack and **complete** inactive commissioning
- Continue programme of asset improvements to manage ageing infrastructure, specifically:
    - **Complete** handover of refurbished grid transformers
    - **Complete** handover of the boiler park

Spent Fuels

- Continue to reprocess Magnox fuel
- Continue to reprocess fuel through THORP, this includes fuel from EDF Energy as well as overseas oxide fuel
- **Complete** the capability to transfer DFR breeder fuel to Sellafield

Manage Nuclear Materials

- Sellafield MOX plant – continuous improvement of fuel production
- **Complete** the active commissioning of the SPRS
- Continue the safe storage of uranium
- Continue the work on solutions to reduce the hazard associated with the uranium hexafluoride tails

Integrated Waste Management

- Continue to process HAL through the vitrification plants
- Continue to export vitrified HAL to overseas customers
- Continue to retrieve and treat, for long-term storage, legacy flocculent from the flocculent storage tanks
- Continue to transfer legacy PCM to modern engineered stores. Ongoing waste treatment activities to support both commercial operations and decommissioning, such as:
    - PCM processed through the Waste Treatment Complex
- **Complete** the construction of Evaporator D to provide additional evaporative capacity
- Continue to process uranic residues
- Continue to process legacy uranium hexafluoride bottles

Critical Enablers

- Sellafield ICP – continued delivery of the ICP improvement programme to enhance performance, specifically:
    - New arrangements for the production of safety cases at Sellafield - pilot projects completed and new arrangements embedded
    - Increased mobility and flexibility of workforce
    - Flexible permissioning of work activities

Magnox Limited

Magnox Limited will be, as of 1 April 2011, the Site Licence Company responsible for the operation of the Berkeley, Bradwell, Chapelcross, Dungeness A, Hinkley Point A, Hunterston A, Oldbury, Sizewell A, Trawsfynydd and Wylfa sites.
The current Parent Body Organisation of the company is Energy*Solutions* EU Ltd

Planned expenditure for 2011/2012 - £648 million

Magnox Programme

Magnox Limited will be formed from the merger of Magnox North and Magnox South which operated as separate entities for three years. The re-integration supports the NDA's challenge to concentrate funds on reducing hazards and produce efficiencies.

There are 10 Magnox sites, each at different points in their lifecycles:

- two are still generating, and extensions are actively being sought to maximise commercial income
- three are being defuelled in line with the Magnox Operating Programme (MOP) *(ref 2)*
- five are defuelled and are in the Care and Maintenance preparation (decommissioning) phase.

The previous business plan showed incremental progress being made across the whole Magnox fleet on a 'broad front' approach, with only one site into Care and Maintenance by 2020 and the last entering Care and Maintenance in 2034. The previous plan provided hazard reduction but over a lengthy timescale. The proposed optimised approach for Magnox will demonstrate real progress to local stakeholders and better value for the UK taxpayer.

This business plan now reflects a new 'optimised' approach. The principle of this approach is to focus on progress at lead sites, deferral of work at others and introduction of innovative practices across the estate ensuring:

- Technical challenges and innovative solutions can be trialled at one site before being applied effectively elsewhere
- Lessons are learned once in the estate and then best practice is rolled out for more efficient delivery elsewhere
- A more efficient use of resources and better optimised plan which has a major benefit in reducing the overall costs of decommissioning
- Proving delivery of technologies and tools ahead of the Magnox competition and providing a more robust benchmark cost base from which to let a new contract
- Stakeholders see visible progress of the clean-up mission providing improved confidence in the nuclear industry
- The Magnox Programme as reflected in this business plan now adopts a consistent programme approach to decommissioning including, consistent solutions, mobile specialist teams, consolidated supply chain solutions and optimal sequencing for:
    - Fuel storage ponds decommissioning
    - Fuel Element Debris treatment
    - Intermediate Level Waste (ILW) Mini-Stores (subject to regulatory consent)
    - Deplant, Demolition and Asbestos Removal
    - Development of ILW Management options including graphite pathfinder project
    - Review the opportunity for personnel and skills transfer between Trawsfynydd, Wylfa and potential new build on Anglesey.

- Magnox competition will follow completion of the Dounreay competition as previously signalled in the NDA's competition strategy.

2012–2014 Planned Key Activities

Site Restoration

- Commence delivery of the Magnox Optimised Decommissioning Programme
  - Progress decommissioning at Bradwell and Trawsfynydd sites to facilitate early Care and Maintenance
  - Progress ILW waste retrieval from the Berkeley Active Waste Vaults
  - Progress Chapelcross and Dungeness A high hazard reduction and interim Care and Maintenance programme
  - Implementation of programmisation to deliver the plan
- Progress physical works towards Magnox reactors into Care and Maintenance

Spent Fuels

- Completion of bulk defuelling at Chapelcross, Dungeness A and Sizewell A, commencement of bulk defuelling at Oldbury and Wylfa
- Management of the MOP and co-ordination of Magnox fuel management activities with Sellafield.

Integrated Waste Management

- Seek to optimise and manage wastes across the whole waste spectrum in accordance with the Waste Hierarchy and national strategy
- Manage Intermediate Level Waste (ILW)

Business Optimisation

- Maximising generation within the constraints of available fuel and the Magnox Operating Programme (MOP) *(ref 2),* through operation at Oldbury to June 2011[1] and Wylfa December 2012
- Disposal of NDA Assets

Critical Enablers

- Completion of all activities related to the formation of the Magnox single SLC
- Manage skills and capabilities to maintain Suitably Qualified Experienced Personnel (SQEP) and focus on delivery
- Maintaining confidence of stakeholders. Review socio-economic impacts and delivery arrangements with the NDA

[1] The opportunity to further extend generation at Oldbury is under development. Exploration of further Wylfa extension will also be carried out.

Berkeley

Located in Gloucestershire, this was one of the UK's first nuclear power stations. The power station operated from 1962 until 1989 when it ceased electricity generation. Defuelling was completed in 1992. The area around the site is environmentally sensitive and is designated as a Special Protection Area (SPA), Special Area for Conservation (SAC), a wetland of international importance under the RAMSAR convention and Site of Special Scientific Interest (SSSI). Berkeley is a decommissioning site which is preparing for Care and Maintenance.

2011-2012 Key Activities

Site Restoration

- Preparations for retrieval of ILW from the Active Waste Vaults

2011–2012 Regulatory Matters

- Concurrence for use of Mini-Stores for Berkeley ILW

2012–2014 Planned Key Activities

Site Restoration

- Retrieval of ILW from Active Waste Vaults and processing for interim storage

Bradwell

Located in Essex and with an area of 28 hectares covered by the nuclear site licence, this power station operated from 1962 until 2002 when it ceased electricity generation. Bradwell is a decommissioning site preparing for Care and Maintenance.

2011-2012 Key Activities

Site Restoration

- **Complete** factory acceptance testing of equipment for the dissolution of Fuel Element Debris (FED)
- Turbine Hall deplanted and demolished
- Completion of pond decontamination
- **Complete** emptying of active waste vaults 3a and 3b
- Complete deplanting of the first reactor pile cap charge machine and progress dismantling of reactor pile caps
- Radioactive Waste Management Directorate (RWMD) – Interim Letter of Compliance (LoC) issued for Bradwell waste streams for Mini-Stores

2011–2012 Regulatory Matters

- EA discharge authorisation for FED dissolution

2012–2014 Planned Key Activities

Site Restoration

- Retrieval and dissolution of FED
- Construction of weather protection for ILW Mini-Stores
- Completion of reactor pile cap deplanting
- Installation of mobile effluent treatment plant
- Retrieval and processing of sludge
- Retrieval of desiccant and catalyst
- Estuary barrier wall removed
- Progress physical works to early Care and Maintenance

Chapelcross

Chapelcross power station is located near Dumfries in South West Scotland and has an area of 96 hectares covered by the nuclear site licence. It was the first nuclear power station in Scotland. Electricity generation started in 1959 and ceased in June 2004. There are locations within 10 km of site identified by Scottish Natural Heritage as Special Protection Area (SPA), Site of Special Scientific Interest (SSSI), and candidate Special Area of Conservation (cSAC). They include the Upper Solway Flats and Marshes RAMSAR site which supports one of the largest continuous areas of inter-tidal habitats in Britain and is of international importance for a range of coastal habitats and waterfowl. Chapelcross is currently defuelling.

2011-2012 Key Activities

Site Restoration

- Continued asbestos removal from heat exchangers and turbine hall
- Continued hazard reduction activities towards interim Care and Maintenance
- Completion of Ponds 1, drain and seal

Spent Fuels

- Continued defuelling in line with MOP requirements

2011–2012 Regulatory Matters

- Regulatory milestone entry into interim Care and Maintenance to be agreed
- Environmental Impact Assessment for Decommissioning (EIAD)
- Pond 2 decommissioning strategy agreed with nuclear site regulators

2012–2014 Planned Key Activities

Site Restoration

- Completion of asbestos removal from heat exchangers and turbine hall
- All reactor desiccant retrieved and packaged
- Pond 2 decommissioning drain and seal pond

Spent Fuels

- Completion of reactor defuelling
- Fuel free verification confirmation agreed with Nuclear Installations Inspectorate (NII)

Dungeness A

Located in Kent and with an area of 20 hectares covered by the nuclear site licence, Dungeness A power station started generating electricity in 1965 and ceased in December 2006. The area around the site is environmentally sensitive, is designated as a Special Protection Area (SPA), a Special Area for Conservation (SAC) and a Site of Special Scientific Interest (SSSI), is proposed as a wetland of international importance under the RAMSAR convention and is home to the largest shingle peninsula in Europe. Dungeness is currently defuelling.

2011-2012 Key Activities

Site Restoration

- **Complete** the dissolution of Fuel Element Debris (FED)
- Retrieval and processing of LLW characterised sludge

2012–2014 Planned Key Activities

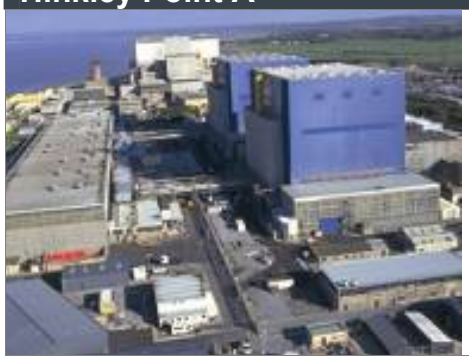
Site Restoration

- **Complete** the removal of bulk asbestos from the turbine hall
- Construction of weather protection for ILW Mini-Stores
- Install and commission retrieval and processing equipment for ILW

Spent Fuels

- Fuel free verification confirmation agreed with NII
- Completion of defuelling in line with the MOP

Hinkley Point A



Hinkley Point A power station is located in Somerset and has an area of 19 hectares covered by the nuclear site licence. It started electricity generation in 1965 and ceased operations in 2000. Several Sites of Special Scientific Interest (SSSIs) and Special Protection Areas (SPAs) are situated around the site. Hinkley is a decommissioning site which is preparing for Care and Maintenance.

2011-2012 Key Activities

Site Restoration

- Continued removal, packaging and disposal of asbestos
- Maintenance of facilities in a safe state

2012–2014 Planned Key Activities

Site Restoration

- Continue asbestos removal
- Drain the water from the ponds and seal the inner concrete walls and base slab

Critical Enablers

- Conduct the 10-yearly Periodic Safety Review

Hunterston A

Hunterston A power station is located in Ayrshire, South West Scotland and has an area of 15 hectares covered by the nuclear site licence. It started electricity generation in 1964 and ceased production in 1989. The surrounding area of coastal mudflats is designated as a Site of Special Scientific Interest (SSSI). Hunterston is a decommissioning site which is preparing for Care and Maintenance.

2011-2012 Key Activities

Site Restoration

- Continued retrieval of material from ponds in line with Magnox ponds programme
- Develop overarching ILW management approach for the site including the graphite pathfinder project
- **Complete** ILW wet retrieval equipment inactive commissioning
- **Complete** active commissioning of the ILW Store

2011–2012 Regulatory Matters

- Regulatory concurrence to the Solid ILW waste management strategy
- Regulatory activities for alternative disposal route for reactor decommissioning wastes (including graphite)

2012–2014 Planned Key Activities

Site Restoration

- Cartridge Cooling Pond (CCP) Sludge Retrieval and encapsulation operations continue
- Pond dewatering/drainage **complete** and floor preparations commence

Integrated Waste Management

- Development of ILW Management options including the graphite pathfinder project

Oldbury

Oldbury power station is located in South Gloucestershire and has an area of 51 hectares covered by the nuclear site licence. It started electricity generation in 1967. The area around the site is environmentally sensitive and has been designated as Special Protection Area (SPA) and a Site of Special Scientific Interest (SSSI). Oldbury is an operational site continuing to generate electricity.

2011-2012 Key Activities

Site Restoration

- Preparations for decommissioning and hazard reduction

Spent Fuels

- Commencement of reactor bulk defuelling in line with MOP *(ref 2)* requirements (following cessation of generation).

Business Optimisation

- Continued electricity generation

Critical Enablers

- Commencement of the organisational change programme for decommissioning

2011–2012 Regulatory Matters

- Regulatory consent / concurrence / no objection for the potential extension of Oldbury Reactor 1
- Post Operational Defuelling Safety Case (PODSC)

2012–2014 Planned Key Activities

Site Restoration

- Commencement of decommissioning activities in line with EIAD

Spent Fuels

- Cessation of generation

Sizewell A

Located in Suffolk and with an area of 14 hectares covered by the nuclear site licence, Sizewell A power station started generating electricity in 1966 and ceased on 31 December 2006. The area around the site is environmentally sensitive and is designated a Special Protection Area (SPA), a Special Area of Conservation (SAC), a wetland of international importance under the RAMSAR convention, a Site of Special Scientific Interest (SSSI) and a National Nature Reserve (NNR). Sizewell is currently defuelling.

2011-2012 Key Activities

Site Restoration

- Continued removal, packaging and disposal of asbestos
- Maintenance of facilities in a safe state

Spent Fuels

- Continued defuelling in line with MOP *(ref 2)* requirements

2012–2014 Planned Key Activities

Spent Fuels

- Completion of defuelling in line with the MOP
- Fuel free verification confirmation agreed with NII

Trawsfynydd

Trawsfynydd power station is located in Gwynedd, North Wales and has an area of 15 hectares covered by the nuclear site licence. It started electricity generation in 1965 and ceased generating in 1991. The site is situated in the Snowdonia National Park near to a number of Sites of Special Scientific Interest (SSSIs), National Nature Reserves (NNRs) and Special Areas for Conservation (SACs). The NDA also has designated powers to manage and operate the Maentwrog hydro-electric power station, which was opened in 1928 and is situated near the Trawsfynydd site. Trawsfynydd is a decommissioning site which is preparing for Care and Maintenance.

2011-2012 Key Activities

Site Restoration

- Hazard reduction through waste retrieval and decontamination for early Care and Maintenance entry
- North and South Fuel Element Debris (FED) civils preparation works
- Completion of ponds North lanes walls preparation (scabbling)
- Completion of safestore capping roofs construction Reactor 1 North and Reactor 2 South

Integrated Waste Management

- Ongoing transfer of drums to the ILW store

2012–2014 Planned Key Activities

Site Restoration

- Progress decommissioning activities to facilitate early Care and Maintenance entry
- Resin vault 3 bulk retrievals **completed**
- Main sludge vaults retrievals completion
- Resin vaults 2 and 3 active deplant **completed**
- Active waste vaults – ILW solids retrievals and processing **completed**
- Completion of all FED vault retrievals and processing

Critical Enablers

- Review the opportunity for personnel and skills transfer between Trawsfynydd, Wylfa and potential new build on Anglesey.

Wylfa

Wylfa power station is located on Anglesey in North Wales and has an area of 21 hectares covered by the nuclear site licence. Commencing electricity generation in 1971, it was the last and largest power station of its type to be built in the UK and consequently, radioactive doses during decommissioning are anticipated to be lower than at other sites. The area around the site includes several areas of environmental importance. Wylfa is an operational site continuing to generate electricity.

2011-2012 Key Activities

Spent Fuels

- Transportation of spent fuel to Sellafield in line with the MOP *(ref 2)*
- Completion of fuel route projects to facilitate defuelling

Business Optimisation

- Continued electricity generation

2011–2012 Regulatory Matters

- Consent to start up following the Reactor 1 statutory outage
- Post Generation Defuelling Safety Case
- Inter-reactor exchange of fuel to facilitate generation

2012–2014 Planned Key Activities

Site Restoration

- Preparations for decommissioning and hazard reduction

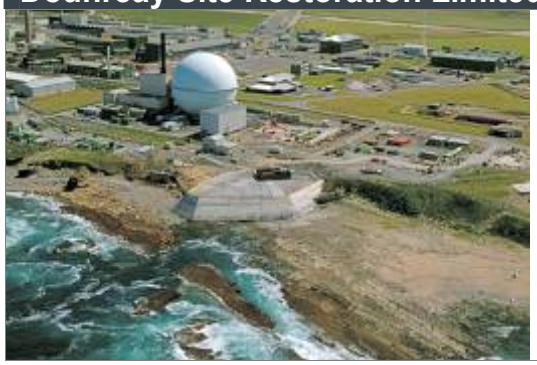
Spent Fuels

- Cessation of generation
- Commencement of reactor bulk defuelling in line with the MOP *(ref 2)*

Critical Enablers

- Commencement of the organisational change programme for decommissioning

Dounreay Site Restoration Limited



Dounreay Site Restoration Limited (DSRL) is the Site Licence Company responsible for the operation of the Dounreay site. The current Parent Body Organisation of the company is UKAEA Ltd, which is owned by Babcock International Group (BIG) Plc.

Planned expenditure for 2011/2012 - £159 million

Dounreay site

Dounreay is located in Caithness, Scotland, and has a total site area of 74 hectares. It was established in the mid-1950s as a research reactor site with fuel production and processing facilities. There were three reactors, the last of which ceased operation in 1994.

2011-2012 Key Activities

Site Restoration

- **Complete** demolition of Building D1207 (Old LLW treatment plant) to slab
- **Complete** the draining, decontamination of 'hot spots' and sealing of the DFR Fuel Storage Ponds

Spent Fuels

- **Complete** 305 of the estimated 335 batches of primary NaK from the DFR reactor
- Establish site capability for out of reactor DFR breeder fuel transfers to Sellafield

Integrated Waste Management

- **Complete** all design work for the new installation of the New Active Analysis Lab
- **Complete** design and start phase 1 construction of the D3100 new LLW Repository
- **Complete** decommissioning of the Building D1251 (Dounreay Material Test Reactor Ancillary Building) sentencing tanks

Critical Enablers

- Provide support to the NDA in the competition for a new PBO

2011–2012 Regulatory Matters

- Agree and formally modify NII Key Milestones based on the flat £150 million funding scenario

Note – The competition may change milestone activities beyond 2011/2012

2012–2014 Planned Key Activities

Site Restoration

- **Complete** detailed design and construction of the Unirradiated Fuels Characterisation Facility (UFCF)
- **Complete** decommissioning and demolition of Building D1217 (Post Irradiation Examination Facility) to slab
- **Complete** design, construction and commissioning for Phase 1 of the D3100 (LLW Repository Facility)
- **Complete** decommissioning and demolition of Building D1251 (Dounreay Material Test Reactor Ancillary Building)
- **Complete** decommissioning and demolition of Building D1204 (Material Test Reactor, Fuel Reprocessing Plant)
- **Complete** bulk potassium sodium (NaK) destruction of alkali metals from the Dounreay Fast Reactor (DFR) primary reactor system
- **Complete** the encapsulation of Material Test Reactor (MTR) raffinates
- **Complete** decommissioning and demolition of Building D1205 - Instrument Workshop/Active Laundry
- Safe and secure operational activities to maintain the site facilities and infrastructure until decommissioning
- Radiological, chemical and asbestos hazard reduction
- Retrieval, conditioning, packaging and shipment of fuels and special nuclear materials
- Decontamination, process equipment isolation and strip-out in high hazard facilities
- Demolition of inactive and decommissioned facilities to reduce utility and surveillance costs and stabilise the decommissioning workforce needs

Spent Fuels

- Complete the removal of fuel from Building D1206 Prototype Fuel Reactor (PFR) Processing Plant
- Complete removal of spent fuel cans from PFR buffer store and pond matrix
- Complete ‘Out of Reactor’ fuel, Breeder Removal Facility, active commissioning at DFR

Integrated Waste Management

- Waste identification, segregation, packaging/compaction and storage/surveillance

Critical Enablers

- Complete transition to new PBO

Research Sites Restoration Limited (SLC)

In February 2009 Research Sites Restoration Limited (RSRL) became the Site Licence Company responsible for the operation of the Harwell and Winfrith sites. The current Parent Body Organisation of the company is UKAEA Ltd, which is owned by Babcock International Group (BIG) Plc.

Planned expenditure for 2011/2012 - £66 million

2011–2014 Planned SLC Key Activities

Site Restoration

- The Care and Maintenance of redundant reactors and other facilities to ensure continuing safety
- Maintaining redundant reactors and other facilities in a safe state
- The continued safe storage of wastes

Nuclear Materials

- Developing and implementing a programme for the transfer of nuclear materials from the Harwell site

Integrated Waste Management

- The retrieval, processing, packaging and safe management of historic wastes
- Developing a plan for the transfer of ILW away from the Winfrith and Harwell sites
- Development of plans for disposal of Very Low Level Waste (VLLW)

Critical Enablers

- RSRL competition will follow completion of the Dounreay competition as previously signalled in the NDA's competition strategy

Harwell

Harwell is located in Oxfordshire and was established in 1946 as the UK's first atomic energy research establishment. The campus, of which the designated site forms a part, is home to a wide range of research organisations and businesses. The NDA has responsibility for 110 hectares of land – approximately one third of the total area.

2011-2012 Key Activities

Site Restoration

- Care and Maintenance of redundant reactors and other facilities
- Removal of designation from the eastern area of site

Nuclear Materials

- Developing and implementing a programme for the transfer of nuclear materials

Integrated Waste Management

- Recovery, processing and packaging of solid ILW
- Processing of sludge LLW in the Liquid Effluent Treatment Plant (LETP)
- Processing of radium cans

2011–2012 Regulatory Matters

- Approval of transport arrangements for moving nuclear materials
- Agreement to the decommissioning programme

2012–2014 Planned Key Activities

Site Restoration

- Care and Maintenance of redundant reactors and other facilities
- Decommissioning of LETP

Integrated Waste Management

- Recovery, processing and packaging of solid ILW

Winfrith

Winfrith is located near Poole in Dorset and has a total site area of 88 hectares. It was established by UKAEA in 1958 as an experimental reactor research and development site. The coast south of Winfrith is a World Heritage Site and the surrounding heath land and chalk ridges are environmentally sensitive.

2011-2012 Key Activities

Site Restoration

- Care and Maintenance of redundant reactors and other facilities

2011–2012 Regulatory Matters

- Agreement to the decommissioning programme

2012–2014 Planned Key Activities

Site Restoration

- Care and Maintenance of redundant reactors and other facilities

Low Level Waste Repository Limited

LLW Repository Limited is the Site Licence Company responsible for the operation of the Low Level Waste Repository (LLWR) near the village of Drigg in Cumbria. The Parent Body Organisation of the company is UK Nuclear Waste Management Limited.

Planned expenditure for 2011/2012 - £36 million

Low Level Waste Repository

The Low Level Waste Repository (LLWR) is located near Drigg in Cumbria and has an area of 98 hectares covered by the nuclear site licence. It has operated as a disposal facility since 1959. Wastes are compacted and placed in containers before being transferred to the facility. The area around the site is environmentally sensitive and is designated as a Special Area for Conservation (SAC) and Site of Special Scientific Interest (SSSI).

2011-2012 Key Activities

Integrated Waste Management

- Decommissioning of Plutonium Contaminated Material (PCM) facilities
- Introduction of new LLW packaging containers
- Submission of the ESC to Environment Agency
- Segregated Waste and Disposal services
- Work with consigning SLC's to further implement the LLW Strategy (ACCELS)

2011-2012 Regulatory Matters

- Maintain a positive, close working relationship with the Environment Agency - key to ensuring submission and that approval of the ESC achieves the desired outcome

2012–2014 Planned Key Activities

Integrated Waste Management

- Continue decommissioning of PCM facilities
- Continue segregated Waste and Disposal Services
- Gain Environment Agency re-authorisation of ESC and maximise radiological and volumetric capacity
- Waste treatment and disposal in line with the UK LLW Strategy
- Work with consigning SLCs to fully implement the LLW Strategy (ACCELS)

- Stimulate the segregated waste treatment supply chain
- Improved waste inventory forecasts across all SLCs
- Operational capabilities in place for the estate-wide management of LLW, informed by waste management hierarchy principles
- Reduction in the Nuclear Provision through implementation of the LLW Strategy and improved waste forecasts
- Secure continued operation and expansion of LLWR by demonstrating to the planning authorities that disposal volumes can be minimised
- Maintain the momentum of supply chain investment in waste treatment arrangements

Springfields Fuels Limited

Springfields is a nuclear fuel manufacturing site and is located near Preston in Lancashire. The site manufactures a range of fuel products for both UK and international customers and decommissions historic uranic residues and 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. The deal supports the maintenance of high-quality jobs that would otherwise have been gradually shed as commercial operations declined and decommissioning progressed.

Planned expenditure for 2011/2012 - £49 million

2011-2012 Key Activities

Nuclear Materials

- The transfer of the site will allow the NDA to focus on its core decommissioning and clean-up responsibilities which have been contractualised with Westinghouse Electric
- Continue to clear uranic residues in the uranium recovery plants

2012–2014 Planned Key Activities

Site Restoration

- Continue the Post Operational Clean Out (POCO) and decommissioning of redundant areas

Nuclear Materials

- Continue to clear uranic residues in the uranium recovery plants

Appendix 4 – NDA and RWMD

Nuclear Decommissioning Authority

The Energy Act (2004) *(ref 1)* transferred the assets and liabilities of all the sites included in this Business Plan to the NDA. Our remit has subsequently widened to include the long-term management of higher activity radioactive wastes. The NDA has seven offices located across the UK with its headquarters in Cumbria. NDA acts as a strategic authority.

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

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

2011-2012 Key Activities

Site Restoration

- Prioritisation of funding for high risk and hazard legacy wastes

Spent Fuels

- Provide programme cohesive overview of the MOP *(ref 2)* programme

Nuclear Materials

- Support Government policy development for plutonium options
- Review the business case for potential consolidations of nuclear materials

Integrated Waste Management

- Drive adoption and implementation of the LLW Strategy (ACCELS)

Business Optimisation

- Secure a future for Capenhurst that maximises overall value for money

Critical Enablers

- **Complete** new Parent Body Organisation (PBO) contract award for Dounreay
- Extend contracts through to completion of competition for Magnox and RSRL
- Embed the updated Strategy
- Ensure delivery of 10% support and overhead cost reductions
- Continue development of effective stakeholder engagement
- Embed the new ways of working in the NDA and estate following the Organisational Review
- Combined development of Skills and People Strategy
- Review National Nuclear Archive project in line with NDA Information and Knowledge Management Strategy
- Review delivery of NDA's socio-economic obligations

NDA – Radioactive Waste Management Directorate (RWMD)

Government has made the NDA the implementing organisation, responsible for planning and delivering a capability to enable the geological disposal of higher activity wastes. The NDA's RWMD is currently running this programme and is being developed into a competent delivery organisation which is capable of applying for and holding regulatory permissions. In due course, it is intended that RWMD will be established as a wholly owned NDA subsidiary. The programme to deliver geological disposal and provide radioactive waste management solutions covers the following objectives:

- Engage with national and local Governments and communities to identify a Geological Disposal Facility (GDF) 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 GDF programme
- Obtain and maintain stakeholder support for our activities
- Deliver a focused R&D programme to support geological disposal and optimised packaging solutions
- Seek sustainable, innovative and cost-effective solutions that have public support and are in the best interest of the UK

2011-2012 Key Activities

Integrated Waste Management

- Review the generic waste package specifications against the 2010 Disposal System Safety Case (DSSC) in support of the GDF Programme
- Progress the ability to become a wholly owned subsidiary of the NDA when appropriate
- Develop a contracting strategy for Surface Based Investigations based on previous commercial strategy work
- Deliver a robust R&D programme to address uncertainties in the generic DSSC (including issues associated with new build wastes) and engineering design of a GDF
- Implement and embed RWMD's new organisation structure

2011-2012 Regulatory Matters

- RWMD will continue to be subject to voluntary scrutiny by its regulators as a 'Prospective SLC'
- RWMD will work with its regulators to agree plans for transition to a regulated body
- RWMD will continue to issue Letter of Compliance (LoC) to support regulators' guidance on radioactive waste management

2012-2014 Planned Key Activities

Integrated Waste Management

- Support consultation on potential candidate site identification and assessment frameworks and finalise the framework documents
- Carry out a Strategic Environmental Assessment (SEA)
- Review issues arising from the 2010 generic DSSC and confirm that appropriate actions are in place
- Support community activities to identify potential candidate sites
- Carry out site evaluations on potential candidate sites
- Maintain the Disposal System Specification
- Develop illustrative disposal system designs to support site evaluation work
- Develop the DSSC to support site evaluation work
- Deliver a needs based research and development programme

Appendix 5 – 2011/2012 Planned Income and Expenditure Summary

£m		Decomm & Clean-up Costs	Total Operations Costs		Total Planned Expenditure	2010/11 Plan
SLCs	Sites	A	Running Cost B	Capex C	(A+B+C)	
Magnox Limited	Berkeley	47			47	32
	Bradwell	71			71	51
	Chapelcross	60			60	53
	Dungeness A	41			41	43
	Hinkley Point A	27			27	32
	Hunterston	39			39	49
	Oldbury	3	74		77	78
	Sizewell A	40			40	42
	Trawsfynydd	86			86	64
	Wylfa	6	81		87	105
	Magnox Support	73			73	71
Electricity Trading	Electricity Trading		78		78	64
Research Sites Restoration Ltd	Harwell and Winfrith	66			66	67
Dounreay Site Restoration Ltd	Dounreay	159			159	166
Sellafield Ltd	Sellafield	621	623	311	1,555	1,500
LLWR Ltd	LLWR	36			36	34
Springfields Fuels Ltd	Springfields	49			49	54
Nuclear Transport and Contract Management	International Nuclear Services		108		108	129
Non-site expenditure		190			190	206
TOTAL		**1,614**	**964**	**311**	**2,889**	**2,840**
Income					**867**	**1,150**
Direct Government Funding					**2,022**	**1,690**

Notes:

1. Numbers may not cast due to rounding
2. Final Annual Site Funding Limits issued in March 2011 may be adjusted to reflect efficiency performance. The NDA reserves the right to reallocate funding to meet programme needs.

Summary NDA SR10 Settlement	2011/12 £ M	2012/13 £ M	2013/14 £ M	2014/15 £ M
Income	867	697	784	873
Government funding	2,022	2,249	2,215	2,146
Expenditure	(2,889)	(2,946)	(2,999)	(3,019)
Net	**0**	**0**	**0**	**0**

2011/2012 Breakdown of Non-site Expenditure

Non-site expenditure	2011/2012 Plan (£m)	2010/2011 Plan (£m)
NDA operating costs	46	54
Radioactive Waste Management Directorate (RWMD)	24	19
Socio-economic, Skills, Knowledge Management, R&D	21	21
Insurance	12	27
Pension costs	1	4
Fees paid to SLCs	86	81
Total	**190**	**206**

2011/2012 Breakdown of Income by Category

Income source	2011/2012 Plan (£m)
Reprocessing and Fuel Manufacturing	348
Electricity Generation	141
Springfields	1
NDA – INS transport	60
Asset Sales	157
MOX contracts	78
Other	82
Total	**867**

Appendix 6 – 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.

Direct Rail Services Limited

Direct Rail Services (DRS) Limited was established in 1995 to provide a rail transport service to British Nuclear Fuels Limited (BNFL), its parent company at the time. 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.

2011 - 2014 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
- Identify new business opportunities in the following areas:
- Domestic and specialists freight
- Network Rail
- Passenger and Charter business
- Third Party Maintenance/Resource Hire
- Public Relations – Continue to raise the company profile through proactive marketing and communication activities for all business sectors and to all key stakeholders

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 shipper of 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.

2011 - 2014 Key Activities

- Continue management of contracts with international customers for spent fuel business
- Manage MOX related services
- Transport nuclear materials, including spent fuel, MOX fuel and vitrified High Level Waste (HLW) internationally
- **Complete** renewal of the PNTL fleet

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 these assets for the benefit of the NDA and dispose of surplus assets.

2011 - 2014 Key Activities

- Manage non-nuclear site properties under NDA control in a cost-effective manner
- Actively market and either lease or sell surplus assets to generate income
- Review options for management of the Berkeley Centre

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.

2011 - 2014 Key Activities

- Provide insurance to the NDA to support its estate-wide insurance programme
- Manage the performance of its investment portfolio with due regard to the overall returns and associated risk assessment
- Ensure compliance with Guernsey regulations and changes relating to solvency
- Supporting the NDA in relation to the revised Paris/Brussels conventions

Appendix 7 - Response to Consultation

The NDA's consultation on the 'Business Plan 2011-14' completed on 26 January 2011, receiving 15 formal responses. Where applicable, comments have been used to amend the document to provide clarity on key activities, however there have been minimal changes.

Positive feedback was received that the document was well written with the structure around the strategic themes being helpful and congratulating the NDA on securing funding in the tough economic climate we are currently experiencing.

We are now able to give you forecast figures for the next four years both for government funding and the NDA's expected income from commercial activities. This has been provided in a table format in Appendix 5. Please note that forecast NDA commercial income is reliant on ageing operating plant and support infrastructure, and so is subject to change. The publication of our draft Business Plan is determined by timescales fixed by Government and the latest version has come hard on the heels of a major consultation exercise around our new draft Strategy and the Government's announcement of the funding settlement for the next four years.

General areas for concern were around the aggregation of R&D / Socio-Economic / Knowledge Management funding and budgets beyond 2011-12.

Despite pressure on the NDA's budget as a result of the spending round and the need to prioritise funding on our major programmes, we remain confident that there are sufficient funds to maintain historic levels of expenditure on supplemental activities such as socio-economics. The actual level of funding available for socio-economics, skills, knowledge management and R&D in the 2011/2012 year will remain about the same as it was for 2010/2011 at £21 million. Nevertheless, experience has shown that annual expenditure in these areas is difficult to predict because it can be dependent upon the nature and calibre of opportunities for investment that emerge during a particular year. By bringing smaller budgets together into one pool we have the flexibility to make better investment decisions in a specific year, whilst still aiming to make progress on all fronts.

Some of the comments were asking for more clarity around activities on each site, however as the NDA Business Plan is a high level document we are unable to specify everything going on at the sites.

The Business Plan is the vehicle through which detailed milestones and outcomes are set out for a three year period. We will consider whether we can include a medium term picture of milestones and outcomes in next year's Business Plan to enable stakeholders to gain a better understanding of intended progress beyond the three year plan.

Additional Copies

You may make copies of this consultation document without seeking permission. We are not producing hard copies of the consultation document this year, however if you require a printed copy please email businessplanning@nda.gov.uk.

Glossary

ACCELS	Acceleration of Element 2 Strategy
BE	British Energy
CCP	Cartridge Cooling Pond
DECC	Department of Energy and Climate Change
DFR	Dounreay Fast Reactor
DRS	Direct Rail Services
DSSC	Disposal System Safety Case
DSRL	Dounreay Site Restoration Limited
EA	Environment Agency
EIAD	Environmental Impact Assessment for Decommissioning
ESC	Environmental Safety Case
FED	Fuel Element Debris
GDF	Geological Disposal Facility
HAL	Highly Active Liquor
HLW	High Level Waste
ICP	Integrated Change Programme
ILW	Intermediate Level Waste
INS	International Nuclear Services
LETP	Liquid Effluent Treatment Plant
LLW	Low Level Waste
LLWR	Low Level Waste Repository
LoC	Letter of Compliance
MoD	Ministry of Defence
MOP	Magnox Operating Programme
MOX	Mixed Oxide
MTR	Material Test Reactor
NaK	Sodium Potassium Coolant
NDA	Nuclear Decommissioning Authority
NDPB	Non-Departmental Public Body
NGO	Non Governmental Organisations
NII	Nuclear Installations Inspectorate
NMPL	Nuclear Management Partners Limited
NNR	National Nature Reserve
PBO	Parent Body Organisation
PCM	Plutonium Contaminated Material
PFR	Prototype Fast Reactor
PNTL	Pacific Nuclear Transport Limited
POCO	Post Operational Clean Out
PODSC	Post Operation Defuelling Safety Case
PVP	Public Value Programme
R&D	Research and Development
RSRL	Research Sites Restoration Limited
RWMD	Radioactive Waste Management Directorate
SAC	Special Area for Conservation
SLC	Site Licence Company
SPA	Special Protection Area
SPRS	Sellafield Product and Residue Store
SQEP	Suitably Qualified Experienced Personnel
SR	Spending Review
SSG	Site Stakeholder Group
THORP	Thermal Oxide Reprocessing Plant
UFCF	Unirradiated Fuels Characterisation Facility
UKNWM	United Kingdom Nuclear Waste Management Ltd
VLLW	Very Low Level Waste
WTC	Waste Treatment Complex

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