

NDA Strategy

Consultation response to the review of the NDA Strategy

April 2016

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Executive Summary

This document provides a summary of the feedback received to the Engagement draft published in September 2015 and Public Consultation draft published in January 2016, of the Nuclear Decommissioning Authority (NDA) Strategy; and the NDA responses to them.

In April 2011 the NDA published its previous Strategy setting out the strategic direction and long-term objectives for the NDA.

The Energy Act (2004) requires that the Strategy is reviewed, updated and consulted on every five years. The most recent review process commenced in April 2014, a draft was published in September 2015 for a period of engagement and a further draft Strategy was published in January 2016 for public consultation.

Having considered the engagement and consultation feedback to the draft Strategy, the NDA has concluded that the overall direction of travel for the Strategy is correct. The Strategy has been reviewed and updated in response to the feedback provided during the engagement period and public consultation. The strategy has been approved by DECC Secretary of State and Scottish ministers

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1.0 Introduction

We published our draft Consultation Strategy between 5th January and 15th February 2016 for public consultation. The draft Strategy was compiled to comply with Part 1, Chapter 1, paragraph 12 of the Energy Act (2004). Our strategy is presented as strategic themes and topics, which provides clarity and a consistent basis for communicating with our contractors and stakeholders. The draft Strategy included a number of questions identifying specific areas for some strategic topics where we were looking for input. Prior to the consultation, we undertook a period of engagement where we published an early draft of our Strategy and gave a number of presentations around the UK to interested stakeholders and statutory consultees. These included Site Stakeholder Groups, Trade Unions, local authority representatives from England, Wales and Scotland, and our subsidiaries and Site Licence Companies (SLCs).

In response to the engagement, we received 24 sets of feedback from a wide range of stakeholders including individuals, public bodies and private organisations. Of the 24 respondents, 20 did not directly answer the engagement questions, but provided a more general response. These responses were considered in developing the draft Strategy for the public consultation and they are covered in the General Feedback section of this document.

For the public consultation we received 67 sets of feedback from a wide range of stakeholders, including some of our SLCs, public bodies, private organisations and individuals. Of the 67 respondents, the majority answered the consultation questions, whilst also providing a general response. These answers and responses were considered in developing the Strategy submitted for approval.

This document considers the stakeholder representations made during the engagement period and the public consultation and aims to summarise the respondents' general responses against each of the strategic themes and Critical Enabler topics and their responses to the consultation questions. The general responses varied from detailed tactical issues for specific sites to policy issues for the UK as a whole. In responding to the engagement and consultation feedback we have only considered strategic issues relevant to the NDA. Where feedback provided is relevant to the tactical delivery of our Strategy on our sites we will make this known to the relevant SLC, and where the feedback is associated with policy, it will be forwarded to Department for Energy and Climate Change (DECC) and Scottish government, respectively.

In reporting the general response to the strategic themes, 'majority' indicates the clear view of more than 50% of those who provided a response to that theme; and 'minority' indicates less than 50%.

The following terms have been used in summarising the responses to consultation questions and additional points raised for the strategic themes and topics in the responses: 'many' respondents indicate more than 70% of those addressing a

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particular theme or topic; 'a few' respondents means fewer than 30%; and 'some' respondents refers to the range between 30% and 70%.

2.0 Engagement and Public Consultation Responses

For each of the 27 individual topic strategies the NDA has a nominated person to act as the Strategic Authority for that subject. The relevant Strategic Authority considered all the responses received against their strategic area of expertise, and assessed the likely impact on our Strategy.

General and overview responses and theme and topic specific responses received over the engagement period and during the public consultation are considered in the General Feedback section of this document and the responses to the consultation questions are considered in Responses to Consultation Questions section 4. Where comments have been considered too detailed to be included in the high level strategy, they will be considered as part of the development of the underpinning strategy and delivery documents.

3.0 General Feedback

The majority of respondents during the period of engagement and public consultation provided general feedback on the Strategy. The majority of responses received were broadly supportive of our strategic themes and considered the approach to strategy development to be appropriate. A few of the respondents highlighted the clarity provided by the hierarchy of the strategic themes and topics were useful in explaining the mission.

Some of the respondents recognised that to make greater progress within our constrained funding would require improved efficiency across our estate, while a few reiterated that in our approach, the over-riding consideration would need to be safety of the public and workers, and the protection of the environment. A few respondents made clear that making tangible progress as early as possible was important. While a few respondents emphasised that we should avoid passing on liabilities created by the current generation to future generations.

While some of the responses reflected that the level of detail presented was appropriate, a few respondents wished to see more information, particularly related to the delivery of our Strategy and an estate-level, medium-term plan with milestone delivery commitments. Some respondents wished to take the opportunity to comment on the UK policy positions in a number of areas (e.g. nuclear new build).

NDA Response

We welcome the generally positive feedback received about the direction of the Strategy and the number of supportive comments and observations received for the strategic themes and topics. The feedback received supports our approach to strategy

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and its development, and our view is that the strategy mechanism devised for our previous Strategy continues to be appropriate.

It is clear that the respondents understand that our funding is constrained and this means we must prioritise the funding allocated to us and implement our strategy efficiently. This prioritisation and efficient implementation are reflected in our Strategy. These requirements were also reiterated by the 2015 Spending Review on which we worked with the UK government to determine what could be achieved in the current climate, balancing affordability with mission delivery. The key strategic priorities to achieve this have now been identified in the introductory sections of our Strategy.

While prioritising our work and seeking efficiencies we appreciate the over-riding need for safety, security and environmental protection in considering our decommissioning mission. Our site specific delivery plans and activities are published in our Business Plan. We make clear in our Strategy that we will not leave unassigned liability to future generations.

Responses relating to the tactical delivery of our Strategy on our sites will be made known to the relevant SLC, and accordingly those associated with government policy will be forwarded to DECC and Scottish government.

3.1 Site Decommissioning and Remediation

The majority of respondents during the period of engagement and public consultation showed considerable support for our approach to the Site Decommissioning and Remediation theme. Some respondents recognised the financial constraints on making progress on site decommissioning and remediation, and that these constraints may need to dictate our priorities, while some respondents expressed a view that deferred decommissioning due to prioritisation could lead to higher lifetime costs to the UK taxpayer.

A few respondents questioned whether intolerable risks were intolerable as they have not been mitigated to date, while a few respondents suggested that the NDA should focus only on the intolerable risks even at the expense of broad progress across the estate.

A few responses to the topic strategies suggested that the NDA should give a clear commitment to engaging with stakeholders (particularly local communities and local authorities) throughout the decommissioning journey.

A few respondents identified that decommissioning activities may themselves result in a temporary increase in risk, and that some decommissioning activities could do harm as well as good (e.g. disturbing habitats) while recognising that these increases in risk and adverse impacts may be necessary to deliver enduring risk reduction.

Many respondents supported remediating sites to a condition suitable for their next planned use. Some respondents supported a pragmatic, proportionate and risk-based

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approach to site restoration that does not try to clean up sites to an unrealistically high standard, while a few respondents wanted reassurance that our aspiration is still to clean our sites to a standard where future land use is unrestricted. Some of the respondents calling for unrestricted use recognised that there are situations where this is not pragmatic (e.g. grossly disproportionate costs).

In general, some of the respondents recognised that in some situations it may be preferable to subject some of our sites to long-term institutional controls, while providing reassurance that this is not an attempt to evade responsibilities.

NDA Response

We welcome the feedback on the requirement for prioritisation and efficiency. Our clear priority is to focus on the highest risks and hazards, particularly those that are intolerable, which means directing funds towards legacy programmes such as Sellafield Legacy Ponds and Silos (LP&S), whilst making broad progress across our estate. Whatever the pace of decommissioning, our overriding consideration is always on safe, sustainable and publicly acceptable operations.

We aim to engage with our stakeholders in the development of our strategy and throughout the decommissioning journey. The commitment for this is given in our Strategy Section 7.9 Public and Stakeholder Engagement.

We were encouraged by the broad support for our end state topic strategy, where some of respondents supported a pragmatic, proportionate and risk-based approach to site restoration, which does not try to remediate sites to an unrealistically high standard.

Overall the general comments and observations received during the engagement period have resulted in some clarifications to the Site Decommissioning and Remediation theme and the associated topic strategies, but they have not resulted in any significant changes in the strategic direction. We have highlighted the benefits of co-operation with local authorities to maximise the potential for reuse of sites, or parts of sites, at interim states.

We welcome the generally positive responses received about the strategic development activities being undertaken.

3.2 Spent Fuels

The majority of respondents during our engagement and in the public consultation supported our approach to spent fuel management which would see Magnox fuel reprocessed and contracts for oxide fuel in THORP completed.

Some respondents felt that spent fuel should be considered an asset and promptly reprocessed. Additionally a few respondents commented that in their view, the conclusion of reprocessing operations in THORP was driven more by artificial constraints (e.g. time) than by need.

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Some responses were supportive of reprocessing as much of the Magnox fuel as is practicable, whilst recognising that there could be some fuel left over, and supported NDA's proposal to undertake the necessary research and development (R&D) to develop alternative approaches for these potential remnants.

A few respondents challenged the justification for continuation of Magnox reprocessing in line with the MOP, stating that, whilst the current approach may be cost-effective, alternative options should be examined by NDA because of the environmental impacts of reprocessing. One response considered that the continued reprocessing of Magnox fuel was not cost-effective and caused wider delays in risk reduction and decommissioning on the NDA Estate. In their view, the dry storage of spent fuel for many fuel types, including Magnox fuel, is proven technology.

Some respondents expressed a view that reprocessing of spent oxide fuel beyond the contractual amount could only be justified if there was clarity on future uses for the nuclear materials produced.

A few respondents commented that spent oxide fuel was better reprocessed than committed to a Geological Disposal Facility (GDF), while a few respondents challenged the justification for continuation of THORP reprocessing.

Given the uncertainties over the completion of the reprocessing programmes and the timescales for the GDF, a number of respondents commented that the NDA should continue to investigate approaches to the management of spent fuels and ensure that the knowledge and experience developed in the UK on spent fuel management is not lost.

A few respondents commented that further information was needed on how exotic fuels left over at the end of reprocessing would be managed.

A few respondents agreed that exotic fuel should be consolidated at Sellafield but one respondent disagreed saying the Dounreay Fast Reactor material should be managed in Scotland. Some respondents commented that NDA should consider plans for its exotic fuels alongside Ministry of Defence (MOD) owned irradiated fuels and that greater clarity is needed on plans for the MOD fuels.

NDA Response

We welcome the range of views regarding reprocessing operations for spent Magnox and oxide fuels and whether spent fuel should be reprocessed or disposed of in a GDF.

Completing Magnox reprocessing as far as practicable and having options to manage any remaining fuels in the event that it is not economic or possible to complete the programme remains a priority for NDA.

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We will continue to undertake research to support the development of spent fuel management options (see Research and Development). By having options available we will be able to bring Magnox and THORP reprocessing programmes to a timely conclusion and ensure the continued safe, secure and cost-effective management of remaining fuels. The UK has been reprocessing spent fuel since the 1950s. It is our intention that we undertake a study to capture this experience of reprocessing so that it can be used to help inform discussions around future nuclear R&D.

In line with the government 2014 white paper on geological disposal (*Implementing Geological Disposal*) our spent fuel strategies assume that, if it was to be declared as a waste, spent fuel can be disposed of in a GDF. We have clarified that, if in the long-term, the reprocessing of spent oxide fuels was shown to be more economic compared to their management through interim storage and disposal, then NDA could choose to manage these fuels through reprocessing.

We currently receive irradiated fuels on behalf of the MOD and store them on an interim basis in specialised facilities at Sellafield. These fuels are owned by the MOD. The decisions and strategy for their long-term management and disposition, beyond interim storage, rests with the MOD. We will continue to work closely with the MOD to support them in developing options for the long-term disposition of these fuels. Due to the nature of these fuels, there is likely to be very limited opportunity to use existing facilities to provide a final disposition route. Where there is potential benefit to the UK taxpayer to manage these fuels alongside the NDA owned exotic fuels, we will explore options with MOD.

The feedback has resulted in some clarifications to the topic strategies under the Spent Fuels theme. We will share the feedback on MOD irradiated fuel with MOD.

3.3 Nuclear Materials

The majority of respondents recognised the need to safely and securely store the nuclear materials. A few respondents questioned whether some of the NDA's nuclear materials should be considered a liability rather than an asset.

Many respondents commented on the importance of developing a long-term strategy for the management of plutonium. However, there were a range of views on the urgency of implementing a solution. A few respondents proposed that disposal was the only option available for dealing with plutonium. One respondent recommended that the NDA should explore non-uranium based MOX fuels as one of the management options.

NDA Response

We welcome the range of views regarding safe and secure storage of our nuclear materials. It is our aim to consolidate the majority of our uraniums at Capenhurst with the remainder of our nuclear materials, including plutonium stocks, consolidated at Sellafield.

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We recognise the need to develop a long-term strategy for the management of plutonium and in response to the feedback on the Plutonium strategy we have revised the Strategy Development section of the Strategy to provide further clarity on our work on the reuse and immobilisation options.

3.4 Integrated Waste Management

The majority of respondents supported our approach to Integrated Waste Management, with the majority of feedback focused on the Radioactive Waste topic strategy and the associated consultation question.

General comments were mainly provided for Radioactive Waste Management, where during the engagement period some respondents highlighted the importance of the GDF to Higher Activity Waste (HAW) management and wished to see the impact of different policies in England and Wales, and Scotland described in more detail. This issue was highlighted again by one respondent during the public consultation. Some respondents challenged the concept of long-term storage of HAW pending availability of a GDF, with a few advocating for interim near-surface options and one suggesting interim storage in raw form.

Some responses highlighted the importance of stakeholder dialogue on matters of radioactive waste management, noting particularly the need for engagement with local stakeholders.

There were a few responses suggesting closer collaboration with other (non-NDA) waste producers when considering options for radioactive waste management.

There were very few responses on the Liquid and Gaseous Discharges topic strategy, but many of the responses received supported the adoption of the UK Liquid and Gaseous Discharges Strategy as the right approach for the NDA. A few respondents suggested that the NDA should challenge the OSPAR discharge requirements to allow NDA to undertake operations it deems necessary.

Similarly to Liquid and Gaseous Discharges there were very few responses on the Non-Radioactive Waste topic strategy. The responses supported our strategic approach.

NDA Response

The NDA welcomes respondents' feedback, and we consider them to generally align with our proposed approach.

Our current strategy is to treat and package HAW into a form that can be safely and securely stored pending disposal in a GDF or in near surface facilities for waste arisings in Scotland. . Our strategy identifies a need to look at alternative disposal options for some of the inventory in support of UK and Scottish government policies,

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which includes near-surface facilities. For legacy wastes, we recognise that a form suitable for long-term management may not be achieved in a single management step and accept that interim storage in raw form may be required to achieve risk reduction.

We aim to engage with all our stakeholders in the development and implementation of our strategy. The commitment for this is given in our Strategy Section 7.9 Public and Stakeholder Engagement.

On the specific point about working together with other waste producers, we believe a careful balance needs to be reached. The legal responsibility for managing waste lies with the waste producer and, whilst we can provide strategic direction, the waste management decision must remain with the waste producer.

Minor clarifications have been made to the Gaseous and Liquid Discharges strategy in light of the feedback we received during public consultation. The UK Strategy for Radioactive Discharges is currently being reviewed and we will take into account the outcomes of the review as part of our Gaseous and Liquid Discharges Strategy.

3.5 Critical Enablers

The majority of respondents agreed that the Critical Enablers were an important part of the Strategy. A few respondents felt the Critical Enablers could be perceived as of secondary importance.

NDA Response

The Critical Enablers are cross-cutting and enable the delivery of the other strategic themes that address our liabilities. Many align with our obligations under the Energy Act, such as R&D, Supply Chain Development and Socio-Economic support. There is no hierarchy of importance due to their interdependence and reliance on each other to achieve overall mission delivery.

Health, Safety, Security, Safeguards, Environment and Quality (HSSSEQ)

A number of general comments and observations about Health Safety and Environment (HSE) were raised in general feedback during the engagement period and public consultation. All responses agreed that HSE performance was critical for the completion of the NDA's mission and should be our priority. Much of the general feedback was aligned with our strategic approach, while one respondent suggested that we were in breach of our environmental commitments.

NDA Response

We welcome the generally positive feedback received about our view on standards of HSE performance but we recognise that there is a diverse range of views on how performance could be improved. This level of detail is not appropriate for the Strategy, but clarification will be made in the underpinning strategy and delivery documents.

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The feedback received during the engagement period and public consultation has resulted in minor clarifications to the HSSSEQ topic strategy.

Research and Development (R&D)

Many of the responses received for R&D were supportive of the strategy and its ongoing development. While a few of the respondents suggested that our R&D should be supportive of the wider nuclear industry, some of the respondents suggested that our focus should remain on R&D which directly benefits the NDA mission.

Some of the respondents commented that R&D needs to continue to be co-ordinated across government and beyond to avoid duplication and maximise R&D funding. A few recognised the importance of the supply chain in delivering the R&D strategy.

A few respondents commented that they would like to see the importance of international collaboration and knowledge transfer further recognised in our Strategy.

NDA Response

We welcome the generally positive feedback received about the strategic direction of the R&D strategy. To ensure R&D remains effective we will continue to liaise with government and other stakeholders to ensure appropriate co-ordination.

The responses received during the engagement period and the public consultation have resulted in minor amendments to the R&D topic strategy, but they have not resulted in any significant changes in the strategic direction.

People (incorporating Skills and Capability)

Many of the respondents agreed that in order to achieve our People topic strategy, we should continue to work with the wider nuclear industry, while a few would like to see us broaden our approach to other industries.

Many of the respondents were concerned that there are significant areas of risk to the nuclear decommissioning skills base, local economies and future capability demands of the wider nuclear sector. A few references were made to the loss of skills due to closure of sites or specific facilities.

Many respondents supported the development of training programmes, qualifications and the close working relationship of the NDA and the wider estate with local schools, colleges, universities and other training providers to create an industry with long-term attraction.

NDA Response

The NDA welcomes the feedback that we should continue to work with the wider nuclear industry on skills but recognises that there are risks which means we will need to consider the impact of skills and resources from a number of different perspectives.

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The comments received during the engagement period and the public consultation have resulted in minor clarifications to the People topic strategy, but they have not changed the strategic direction of our People strategy.

Asset Management

Many of the engagement and public consultation responses aimed at Asset Management supported our approach to strategy and its ongoing development. Some of the respondents suggested that we should move to implement ISO 55000 asset management standard suite immediately, while some were content that NDA continued to use the equivalent Publicly Available Specification 55 (PAS-55). Many of the respondents suggested that our asset management focus should remain on the highest priority facilities, while a few comments and observations suggested we should adopt a broad front approach to asset management.

A few respondents commented that a reference is made to facilitating the sharing of facilities/assets across the estate (e.g. waste management facilities). One comment went further suggesting that our approach should seek for synergies for asset sharing with adjoining sites (e.g. new build).

NDA Response

The NDA welcomes the generally positive feedback received about our approach to asset management. We recognise that there is a need to review the application of ISO 55000 across our estate, and we have made a commitment to review the benefits of adopting this as an alternative to PAS-55.

We agree with the comment on asset sharing, and have emphasised this in the Asset Management and other sections of our Strategy (e.g. Section 6.1 Radioactive Waste and Case Study Consolidation) that seek to continue to share assets with other organisations where there is a value in doing so.

The comments received during the engagement period and over the public consultation have not resulted in any changes to the strategic direction for Asset Management, but clarifications have been made in the text for the issues raised.

Contracting

Some of the responses addressing the Contracting topic strategy were positive about the NDA having an appropriate range of available contracting models. Some of the respondents suggested that there should be more focus on Small and Medium-sized Enterprises (SMEs) and the socio-economic aspects of contracting.

Some of the respondents recognised and welcomed the involvement of the private sector in the decommissioning mission and suggested that more could be done to encourage local suppliers to participate in the mission. A few comments highlighted contractual difficulties experienced across our estate.

NDA Response

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We welcome the support to our contracting approach, especially the support of the supply chain. Our intention has always been to encourage SMEs to participate in the delivery of our mission. The proposed approaches to doing this have been discussed in our Strategy Section 7.6 Supply Chain Development and Section 7.8 Socio Economics.

We acknowledge that some of our suppliers are experiencing difficulties in contracting with our estate.

The feedback received during the engagement period and the public consultation has resulted in minor clarifications to the Contracting topic strategy, but they have not resulted in any significant changes in the strategic direction.

Supply Chain Development

Many of the respondents identified the importance of the supply chain for the NDA mission. A few comments and observations suggested that NDA should develop requirements for the supply chain, while a few respondents suggested that the supply chain should be made more open for local SMEs to benefit from the NDA mission.

A few of the respondents identified that, in accordance with the Energy Act, the NDA has a responsibility to maintain and develop a robust and successful supply chain and suggested that we should also link the development to new missions and economic sustainability.

NDA Response

We and our SLCs recognise the importance of the supply chain to our mission. Significant progress has been made across a wide range of interventions and improvements but much work still remains. The estate exceeded its SME target under the previous government but we have agreed a new target which will be supported by a new detailed SME action plan. Our new strategy recognises for the first time the impact that we can have on developing supply chain capability and capacity and more detailed actions will follow. Many of the actions and interventions will be developed with the support and help of our stakeholders including critically the supply chain. There are new emerging agendas, including UK Growth, and as the details become clearer, the Supply Chain Development strategy will almost certainly continue to evolve. The Supply Chain Development strategy is also a recognised enabler for other topics including Socio-Economics, R&D, People and International Relations.

The feedback received during the engagement period and public consultation have resulted in minor clarifications to the Supply Chain Development topic strategy which does not lead to a change to the strategic direction.

Information Governance (including Information & Knowledge Management)

Very few responses were received for the Information Governance strategy. All respondents agreed that Information Governance was important for the NDA mission,

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with a few respondents suggesting how information management should be implemented.

A specific comment was made in regard to capturing the heritage of the UK nuclear industry and retaining this for future generations. The capture of knowledge and retention of information was also mentioned in a number of responses on other strategic themes and topics. Many of these comments and observations highlighted the need to capture and retain knowledge and information.

NDA Response

The NDA welcomes the generally positive feedback received about the Information Governance topic strategy. We acknowledge that the primary focus of the Strategy is to ensure that current know-how is passed on effectively to others within the industry and that any information held will be managed appropriately.

The responses received during the engagement period and the public consultation have resulted in a minor amendment to the Information Governance strategy highlighting the need to capture information relating to the UK nuclear heritage and placing this information in the NDA Archive.

Socio-Economics

Many of the respondents who provided general comments on the Socio-Economics strategy were concerned that the amount of funding available for socio-economic projects would reduce. During the engagement a few respondents were of the view that either the NDA should review its policy of having four 'priority areas' for socio-economic expenditure or that a different approach should be taken and applications considered solely on their merit regardless of where they were from. In response to the public consultation a few respondents considered the move away from 'priority areas' to be a mistake.

Many respondents were of the view that local communities should be more involved in the decision making concerned with the allocation of funds.

NDA Response

The NDA welcomes the generally positive feedback received on the Socio-Economic topic strategy and acknowledges the concerns raised about funding and prioritisation and the involvement of local communities in the implementation of the Socio-Economic strategy.

After the engagement period, we acknowledged the need to review the four 'priority areas' and amended the strategy so that our interventions are to be based on key phases in a site's lifecycle that have consequences for the local socio-economic situation. The feedback received during the public consultation has resulted in some additional clarifications, but there have been no other significant changes to the Socio-Economic topic strategy.

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Public and Stakeholder Engagement

General comments on the Public and Stakeholder Engagement strategy were mixed with the answers to the consultation questions.

While many of the comments received addressed the questions posed, a few comments addressed the stakeholder engagement associated with the development of the Strategy document, and raised an issue that the NDA do not engage sufficiently with the stakeholders in the development of their strategy.

The main themes that were raised were, our approach to engagement with EDFE sites and new build, national vs. regional engagement, clarity on the role of the SLCs and the role of the NDA with regard to engagement and a number of responses requested closer working relationships between NDA and local authorities.

NDA Response

We welcome the feedback and support given to the Public and Stakeholder Engagement strategy. We are confident that our approach to engaging with stakeholders in the development of our strategy has been very inclusive within a number of different forums (e.g. Site Stakeholder Groups, Theme Overview Groups and National Stakeholder Events etc.).

Our strategic approach to Public and Stakeholder Engagement has not changed in response to the comments received, however we have clarified the section on engagement with EDFE and new build sites and also the section on national vs regional engagement. We have amended the text to highlight the responsibilities of the NDA and the SLCs and we have strengthened our commitment to working with local authorities.

Transport and Logistics

Consultation respondents generally agreed that transport is an important consideration for the movement of radioactive materials between sites. Specifically, respondents highlighted that transport was a stakeholder sensitive issue and early engagement with local authorities and communities was recommended where local transport plans were being developed.

In terms of preferred transport mode, many of the respondents provided their preference of rail over road, while one response also highlighted the possibility of sea transport. A few respondents also suggested that national, regional and local transport plans and strategies should be developed to support the mission.

One respondent was highly concerned that future transport requirements were not fully understood especially in terms of availability of the necessary transport infrastructure.

NDA Response

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The NDA welcomes the feedback that several respondents support NDA's strategic preference of rail movements over road movements. The strategy considered all modes of transport as credible including sea transport, as the timescales associated with our site decommissioning plans are long.

To ensure we have a good understanding of the future infrastructure requirements we have given a commitment to review the infrastructure for the different transport modes.

The feedback received during the engagement period has resulted in minor clarifications and reorganisation of the Transport and Logistics topic strategy, but has not resulted in any significant changes in the strategic direction.

Revenue Optimisation

There were very few general comments about revenue optimisation. Where the issue of revenue optimisation was touched upon in other sections of the Strategy Section 3.0 Site Decommissioning and Remediation Section, Section 4.0 Spent Fuels, and Section 7.13 Land and Property Management, many of the respondents supported the aims of the Revenue Optimisation strategy. Some of the comment focused on how to maximise commercial income in the future.

NDA Response

The NDA welcomes respondents' feedback and agree that they generally align with what we do now, and plan to do in the future.

International Relations

Many of the respondents for the International Relations topic strategy were positive about the proposed approach. Some of the respondents suggested that there should be more focus on learning of best practice from other decommissioning programmes.

The majority of the comments on the International Relations strategy addressed the consultation questions.

NDA Response

The NDA welcomes the generally positive feedback received about the International Relations topic strategy. We acknowledge the comments and observations raised on learning from others' decommissioning programmes, but consider that our current approach gives due regard to learning from others.

The feedback received during the engagement period and public consultation has resulted in some minor clarifications to the International Relations topic strategy, but these have not changed our strategic focus.

Land and Property Management

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Very few responses were received for this strategy. All the respondents recognised that securing maximum value for the UK taxpayer and considering the impact on local communities were key issues to be considered when disposing of assets. Some comments and observations about Land and Property Management were included in the Land Use topic strategy and Revenue Optimisation topic strategy.

One respondent suggested that all of the NDA assets should be included in an Asset Management plan.

NDA Response

The NDA welcomes respondents' feedback, and we agree that they generally align with our proposed approach. There were some detailed responses that cover how Land and Property Management could be improved. These comments and observations were considered valid, but the level of detail was not considered to be appropriate for the Strategy. They will however be taken into consideration in the underpinning strategy and delivery documents.

The feedback received on the Land Use strategy has resulted in some clarifications about the interface between the Land and Property Management strategy and Section 3.4 Land Use strategy.

4.0 Responses to the Consultation Questions

The remainder of this document provides a high level summary of the public consultation responses and the NDA's response to these, organised under each question.

Question 1:

What are your views on NDA prioritising the progress of decommissioning and remediation for benefits other than that purely based on risk reduction (for example, progressing decommissioning and remediation at Winfrith to reduce maintenance costs, demonstrate our ability to complete the mission, and allow beneficial reuse of the land)?

Summary of responses to question 1

Many respondents supported prioritisation of decommissioning activities which are proportionate to the level of risk. This approach combined with delivering value for money and was seen as an important issue by some of the respondents. Some respondents suggested that we should continue with broad front decommissioning to progress our mission across our estate, and one respondent suggested we should prioritise our decommissioning to sites that demonstrate our ability to complete the mission.

NDA Response

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We appreciate the general support of respondents of the NDA's overall decommissioning strategy and in particular the prioritisation of decommissioning activities based on the level of risk. In response to comments from respondents we have provided additional clarification as to broadly acceptable risks within the context of our approach to the prioritisation of risk in Section 3.

Question 2:

What are your views on the NDA's decision to review the deferred dismantling strategy for Magnox reactors?

Summary of responses to question 2

Many of the respondents supported the proposed review of the deferred dismantling strategies for Magnox stations. Some respondents supported the early dismantling of Magnox reactors, while a few respondents highlighted the potential value of deferring decommissioning.

NDA Response

The variety of comments received both demonstrates overall support for NDA's strategy in this area and also highlights the sometimes complex elements of the review. We have made a number of minor changes to the 'Optimum timing and sequencing of Magnox reactor dismantling' to further demonstrate the NDA vision for accelerated Magnox decommissioning.

Question 3:

What do you think are the benefits and disadvantages of reusing wastes from remediation or demolition on site for backfilling void and landscaping?

Summary of responses to question 3

Many respondents showed considerable support for a proportionate, risk-based approach to Land Quality Management. Respondents appreciated the benefits of *in situ* solutions, with respect to minimising waste and retaining material on site rather than excavating material for disposal elsewhere, while a few respondents were concerned about leaving a legacy for future generations by leaving waste on the sites.

A few respondents also recognised that remediation activities could do harm as well as good (e.g. spreading contamination). Respondents stated we should avoid action where the benefits are small compared to the detriments.

NDA Response

The nature and context of responses to this question demonstrate that NDA strategy in this area has been understood and has general agreement. In particular, the general agreement that remediation could sometimes do more harm than good is welcome as it underpins the risk-based approach to Land Quality Management. In response to

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comments we have further highlighted the potential impact of remediation activities on ecosystems.

Question 4:

From your perspective, what are the benefits and detriments of focusing on interim states for those sites (or parts of site) where the end state will not be achieved for many decades?

Summary of responses to question 4

Some of the respondents supported high level end state definitions for sites with near-term focus on interim states to define the decommissioning journey. A few respondents queried the connection between deferral of decommissioning and introduction of interim states.

While the question was about use of interim states, a few respondents suggested that where possible the NDA should avoid interim quiescent phases for Magnox reactors prior to moving to the quiescent period (known as Care and Maintenance on Magnox reactor sites).

NDA Response

The NDA welcomes respondents' feedback, and we agree that they generally align with our proposed approach. We recognise that interim states for sites need to explain the site specific decommissioning journey, and have added additional detail to further clarify the Winfrith interim state in the Case Study: Winfrith. We have included some key interim states for our sites in our Strategy Section 9.0 Site Licence Companies and Designated Sites and Installations, with the near-term targets given in our Business Plan.

Question 5:

Land Use is a new topic strategy; do you find this is a helpful topic and if so, why?

Summary of responses to question 5

Some of the respondents agreed that inclusion of Land Use as a topic strategy in Site Decommissioning and Remediation was helpful in explaining the decommissioning journey towards the next planned use, while some considered it to be a distraction as land use on sites would not be considered for decades.

NDA Response

In general the responses demonstrate that the addition of the Land Use topic strategy is seen as beneficial in terms of providing context to the decommissioning journey in terms of next uses at interim states as well as end state.

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In response to comments we have clarified the interface between the Land Use and Land Property Management topic strategies within our Strategy. In addition, we have strengthened the Land Use strategy to identify credible options for land use at end state or at interim states prior to achieving end state.

Question 6:

In your view, in the event that not all Magnox fuel can be reprocessed what factors should the NDA consider in deciding how to manage the remaining material?

Summary of responses to question 6

Some respondents recognised that the Magnox facilities are assets which have been in operation for many decades and that the age and condition of the facilities and the cost for maintaining them are important factors in deciding when to conclude reprocessing operations.

A range of other factors were also highlighted in response to question 6 including:

- impacts on other operations such as high hazard reduction
- safety, security and the environment
- stakeholder support and engagement
- employment
- impacts on future generations
- overall lifecycle of options
- inclusion of fuel in a GDF
- risks.

NDA Response

We welcome the respondents' feedback and in developing alternative options for managing spent Magnox fuel we will take into account a range of relevant factors including some or all of those described above.

We believe it is important to work together with our stakeholders and will continue to do so as we continue refining our Spent Magnox Fuel strategy.

The responses received for question 6 during the consultation have not resulted in any significant changes to the Spent Magnox Fuel strategy.

Question 7:

In your view, should the NDA continue to investigate alternative storage technologies to manage oxide fuels in the long-term, and if so, why?

Summary of responses to question 7

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Many respondents commented on the importance of Sellafield to receive and manage Advanced Gas-Cooled Reactor (AGR) fuel including those arising from lifetime extensions by EDF Energy (EDFE) to their AGR fleet. Some supported the investigation of alternative storage technologies, while some other respondents were adamant that the reprocessing of oxide fuels should continue indicating that investment should go to development of reprocessing technologies rather than storage.

NDA Response

The NDA welcomes the varied response to question 7 and notes the importance placed on Sellafield in receiving spent oxide fuels from the EDFE fleet of AGR stations.

It is important to the NDA that the reprocessing programme for the spent oxide fuels is concluded on a timely basis. This timetable is driven by our aim to complete the current reprocessing contracts and to ensure we have sufficient storage space for the remaining AGR fuel and future arisings. Looking at alternative storage technologies for the long-term management of spent oxide fuels is an important part of this strategy, but it does not foreclose any future management options for these fuels.

We look forward to engaging with our stakeholders as we develop long-term storage options for the spent oxide fuels stocks pending a future decision on whether to declare them as waste for disposal in a GDF.

The responses received for question 7 have resulted in a clarification to the Spent Oxide Fuel topic strategy, highlighting that placing spent fuel in storage will not foreclose future options for its management, including the options to dispose of in a GDF or to reprocess them.

Question 8:

Do you think that the NDA should plan to store its uranics stocks until such time that recycle routes are viable (which would realise value but could be several decades into the future), or consider earlier disposal (to GDF or alternative routes) which would not realise value but ensure disposition of all the inventory?

Summary of responses to question 8

Some of the respondents were in favour of early disposal for our uranic materials, while some favoured continued storage either pending opportunities for recycling or because disposal would not be realistic at this time. Some respondents suggested that the preference should be decided on the cost and the benefit of these options and the synergies with other waste producer's uranics and other relevant factors.

A few respondents questioned whether the current and future value assessment of the uranic materials was correct.

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NDA Response

The NDA welcomes respondents' feedback on consultation question 8. The responses are approximately equally divided between those who believe that our uranic stocks should be disposed of, and those who favour storage and recycle if the economics and benefits are demonstrable.

We have noted all of these comments and will include them in a future decision on our uranic materials.

The responses to the consultation question have not resulted in any changes in the Uranics topic strategy.

Question 9:

What are your views on the waste management principles described in this strategy?

Summary of responses to question 9

Many of the respondents supported the waste management principles outlined in the strategy and some noted that the application of the Waste Hierarchy supported the proposed approach to waste management. A few respondents suggested that the way the waste hierarchy is applied to radioactive waste is not compatible with environmental principles.

NDA Response

The NDA welcomes respondents' feedback, and we agree that they generally align with our proposed approach. We welcome the favourable response to the waste management principles detailed in the draft strategy document. These principles support and inform the development of our waste strategies.

Question 10:

Do you agree that the proposed new approach to move towards the development of a single radioactive waste strategy is appropriate and what issues do you think we should address?

Summary of responses to question 10

Many of the respondents addressed question number 10 and supported our proposed strategy of moving away from category management to a risk-based lifecycle approach. A few respondents were concerned that this could lead to confusion in waste management.

A few respondents suggested that this approach was already employed across the NDA estate, while a few respondents considered that moving away from category

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based management of waste would not always allow for best means of disposal for specific wastes.

NDA Response

We welcome the supportive response to our development of a single radioactive waste strategy and look forward to ongoing stakeholder dialogue during the development of the strategy.

Question 11:

Which areas should do you think we should focus on in the strategic development of HSSSEQ?

Summary of responses to question 11

Many of the respondents were very supportive of our approach to HSSSEQ and considered the current development plan to be the correct one. A few respondents identified that NDA should do more in developing health, safety, security and environmental (HSSE) approaches proportionate to the risk of the activities. A few respondents suggested that there was too much focus on security in the nuclear industry, and more should be done to challenge the need for blanket security.

Areas of prospective development identified from the consultation responses were:

- cyber security
- wellbeing of employees
- challenging the radiation protection models (e.g. Linear No Threshold) and approaches (e.g. ALARP)
- maintaining the heritage of the nuclear industry in the UK.

NDA Response

The NDA welcomes respondents' feedback, and we agree that they generally align with our proposed approach. We believe it is important to work together with our stakeholders in developing our HSSSEQ strategy and look forward to engaging with all the key stakeholders in developing proportionate approaches to HSSE. Security issues are important to the industry and we must ensure we implement the necessary security improvements to make our estate secure.

In response to the specific suggestion about challenging the Linear No Threshold (LNT) model for human exposure to ionising radiation and the associated processes, we are aware of the differences in professional opinion but we do not, at present, feel that it is the NDA's role to support or lobby for what would ultimately result in a very significant change in the law controlling radiation exposure. Any such change would need to be underpinned not only by scientific research, but also by public opinion and

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industry acceptance. Compliance with the law is, and will remain, the basic requirement for everyone working on the NDA estate.

We will be looking at new strategic development areas in the future and give due consideration to the proposals received during the engagement period and public consultation.

The feedback received for the consultation question 11 during the public consultation has not resulted in changes to the HSSSEQ topic strategy.

Question 12:

Should the NDA do more to support science, technology, engineering and maths (STEM) development at school level as well our existing activities in further education?

Summary of responses to question 12

Many of the respondents suggested that NDA should do more to support STEM development, and some respondents suggested how this could be achieved. A few responses were against NDA taking a greater role in STEM development on the grounds that there are better placed organisations to carry out STEM support than the NDA.

NDA Response

We note the overwhelming response for us to do more to support STEM at a school level. We consider this support important and acknowledge that the NDA has a role to play in that. However, as suggested by a few respondents, we would not expect NDA to lead this activity as other agencies and organisations may be better placed to lead in this area. The response has encouraged us to determine what our role should be through our different strategic topics (e.g. R&D strategy).

The responses to question 12 have not resulted in any significant changes to the associated topic strategies i.e. R&D, People and Socio-Economics.

Question 13:

What changes in NDA contracting approaches would make the biggest positive impact to encourage innovation?

Summary of responses to question 13

In response to question 13 many of the comments were associated with supply chain support, which was also reflected in the general comments provided for the Supply Chain Development strategy. This support was identified generally as removal of barriers, simplification and training. Other suggestions included a few comments on 'right first time' approach tied to fixed price contracts. Other suggestions included changes in Intellectual Property ownership, and open competitions.

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Some of the respondents commented on the process, where suggestions included opportunities for better incentivisation, flexible and proactive procurement and better co-operation with the SLCs.

NDA Response

We recognise the need for a healthy supply chain and the value of the supply chain to delivering the NDA mission. Our intention has always been to encourage new innovative contractors, including SMEs, to enter our supply chain and to enable companies of all shapes and sizes to bid for work and subsequently be successful across our Estate. The Estate remains committed to further improve the consistency of systems and processes, and proposals are being developed to further drive these efficiencies.

We strongly support the desire for “right first time” but also accept that failure is an aspect of all contracting. The Estate will work with the supply chain to maximise the opportunities for success and minimise the impact of any problems. The Estate offers a wide range of contracting opportunities and accordingly it is right and appropriate that the full range of commercial options are appropriately used. The NDA and its estate remain open to further improvements at all levels, and the supply chain should be confident that these will be appropriately considered.

The comments received in response to consultation question 13 have not resulted in changes to the Supply Chain Development topic strategy, but the co-operation with our Socio-Economics strategy and other strategies such as R&D is emphasised with suitable cross references.

Question 14:

How can we best measure and report on the impact of our socio-economic activities?

Summary of responses to question 14

Many of the respondents identified measures that could be used to report on our socio-economic activities. A few respondents suggested that NDA should employ ‘dashboards’ to report the appropriate measures to stakeholders. Some of the respondents were in favour of using existing economic indicators to show the impact of the Socio-Economic strategy, while some others suggested that indicators should be based on employment indicators (e.g. jobs lost, jobs created). Another suggestion from some of the respondents was to monitor the number of companies entering and leaving the supply chain. One respondent suggested that number of apprentices should be one of the indicators for the implementation of the Socio-Economic strategy.

NDA Response

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We are encouraged by the varied feedback and proposals for measuring and reporting our socio-economic activities, and look forward to working with our stakeholders in determining the appropriate way of measuring and reporting the impact of our socio-economic activities.

The comments received in response to consultation question 14 have not resulted in significant changes to our Socio-Economics strategy.

Question 15:

Should NDA consider regional and / or SLC based engagement? If so, how would it work in practice?

Summary of responses to question 15

Some of the respondents were suggesting we should continue with the current process while some others suggested we should move to regional events. A few respondents believed it should be a mix of the two. Number of proposals was given on how the regional stakeholder engagement might work.

NDA Response

The NDA welcomes the broad range of feedback in response to question 15 and the options for engagement going forward, and how regional engagement could work in the future.

We are committed to reviewing our approach to public and stakeholder engagement and look forward to working with our stakeholders in deciding the appropriate way of implementing our Public and Stakeholder Engagement strategy.

We have reworded the section on National and Regional engagement to say that engagement will be issue led and therefore national and regional both have a place rather than it being either or.

Question 16:

What factors should we consider when thinking about stakeholder engagement around Magnox reactor entering in to periods of quiescence?

Summary of responses to question 16

In response to question 16 many of the respondents were of the view that it is in the remit of the NDA and the SLCs to identify the factors that should influence the level of stakeholder engagement when entering in to periods of quiescence. A number of respondents suggested how engagement should be implemented, with some of the respondents in favour of the current approach to engagement while some others were suggesting that the current approach is too extensive for the period of quiescence. One respondent suggested that stakeholder engagement should be made more extensive with daily or weekly stakeholder bulletins.

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NDA Response

We welcome the respondents' comments and trust placed in us to determine the appropriate way forward. We will engage with our stakeholders in developing a better understanding of the factors we should consider when deciding on the appropriate level of stakeholder engagement during quiescence.

The comments received in response to consultation question 16 have not resulted in changes to the Public and Stakeholder Engagement strategy.

Question 17:

When evaluating the opportunities to dispose of assets (including land) or pursue additional commercial revenue, what factors are the most important for the NDA to take into account and why?

Summary of responses to question 17

Respondents recognised that securing maximum value for the UK taxpayer and considering the impact on local communities were key issues to be considered when divesting the NDA's assets. Other issues identified were:

- public trust
- safety
- security
- long-term view (e.g. land for the mission and land as a national asset).

Some feedback strongly supported maximising commercial income. Positive comments and observations were received about the potential for the NDA to benefit from the nuclear new build programme, with a few respondents suggesting that the NDA should seek to integrate their sites with the proposed nuclear new build sites.

NDA Response

We welcome the respondents' comments and suggestions and note that majority of the factors identified are covered by the NDA Value Framework. Through the implementation of our revenue generating strategies, we will ensure that we do not compromise either the Spent Fuel Strategies nor dispose of assets which are required by our SLCs to complete our mission.

The feedback received during the public consultation has resulted in a minor clarification to the Revenue Optimisation strategy by including exploitation of NDA owned Intellectual Property in our Strategy.

Question 18:

Where should the focus its attention to help maximise the benefits of international engagement?

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Summary of responses to question 18

Many of the respondents indicated that the focus of the International Relations strategy should be on supporting the NDA mission, while some the respondents recognised the role of the NDA in promoting the UK nuclear industry abroad where it did not negatively impact on the NDA mission. Many of the respondents suggested that the current balance of the approach was correct, while a few suggested that we should not engage internationally as much as we do.

Some of the respondents suggested new focus areas for the international Relations strategy to develop public trust in the nuclear industry (e.g. working with Scandinavian countries).

NDA Response

The NDA welcomes the generally positive feedback received about the International Relations topic strategy. We strongly agree that our priority should always be to our mission and where there are opportunities to promote the UK nuclear industry abroad it should only be done if there is no negative impact to us.

The feedback received during the engagement period and public consultation has resulted in some minor clarifications to the International Relations topic strategy, but these have not changed our strategic focus.

5.0 Conclusion

This document summarises the key and common responses received during the engagement on our draft Strategy, published 8th September 2015 and over the public consultation published on the 5th of January 2016 and the specific responses to the consultation questions. It does not attempt to cover all points received from respondents.

All responses received have been considered by the NDA Strategic Authorities. The feedback was broadly supportive and therefore no significant or substantive changes have been made to our proposed strategic direction. Any changes have generally involved providing additional detail or clarification to help understanding and inform our stakeholder community; in addition the more detailed comments and observations received will be taken into consideration in the underpinning strategy and delivery documents.