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NIA response to the Business, Energy and Industrial Strategy Committee inquiry on Post-pandemic economic growth: Industrial Strategy

1. The Nuclear Industry Association (NIA) welcomes the chance to respond to the Business, Energy and Industrial Strategy Committee inquiry on Post-pandemic economic growth: Industrial Strategy.
2. The NIA is the trade association and representative body for the civil nuclear industry in the UK. We represent around 250 companies operating across all aspects of the nuclear fuel cycle. This includes the current and prospective operators of nuclear power stations, the international designers and vendors of nuclear power stations, and those engaged in decommissioning, waste management and nuclear liabilities management.
3. In our recent report, [Forty by '50: The Nuclear Roadmap](#), the NIA outlines the potential contributions of the UK nuclear industry to reaching Net Zero and details six short-term recommendations for industry and Government to meet in order to reach these ambitions.
4. Published in 2018, the Nuclear Sector Deal has four primary targets to reach by 2030:
 - Secure a 30% reduction in the cost of new build projects
 - Save 20% in the cost of decommissioning compared with current estimates
 - Have 40% women in the nuclear workforce
 - Win up to £2 billion domestic and international contracts
5. A number of our members may choose to make their own detailed submissions. The focus of this submission is therefore on high-level, industry-wide matters.

Relevance of the IS

How can the IS be made more relevant and accessible for the UK's supply chain, LEPs, Growth Hubs and for individual companies, investors and entrepreneurs? Has it helped SMEs grow and innovate? Is it helping Ministers decide on broader market interventions and policies to recover the economy following Covid-19?

The effectiveness of the Industrial Strategy is heavily influenced by strong and favourable Government policy in the industries that it focuses on. For nuclear, and many other industries in the UK energy sphere, this clarity on Government policy is lacking.

Energy industries have been waiting over a year for the publication of the Energy White Paper, as well as the release of the delayed National Infrastructure Strategy, which is also expected to significantly influence the future of the nuclear industry and others. More specifically for the nuclear sector is also waiting for the Government response to its consultation on a Regulated Asset Base (RAB) model for financing new nuclear that closed in November 2019.

Uncertainty in Government policy disproportionately affects the supply chain of the industry in which it influences, and as we already face an economic recession as a result of the Covid-19 pandemic, supply chains across the UK are already vulnerable.

The Government must provide guidance and support to industries and their supply chains through robust and clear policy as soon as possible to mitigate the effects of Covid-19 and any delays in work and loss of income due to uncertainty caused by lack of policy in nuclear.

It is for this reason, that the potential benefits of the Industrial Strategy will be hindered by uncertainty in Government policy and the BEIS Committee should continue to push for the release of the aforementioned publications, due to the negative effects it may have on the progress of the Industrial Strategy.

IS Grand Challenge Missions

Is the Government focusing on the right grand challenge missions (artificial Intelligence and data, ageing society, clean growth, future of mobility) and, if not, which are missing? Are missions addressing the right problems and are they the best approach? Where the Government has established additional capacity to deliver them (e.g. the Office of AI), has it succeeded, how is this evidenced, and can they be improved?

Clean Growth plays an integral part in the UK reaching Net Zero by 2050, and the NIA welcomes its inclusion as part of the Industrial Strategy's four main challenge missions.

Today in the UK, the nuclear industry provides nearly half of our clean electricity, powers one in five homes across the UK, prevents 20m tonnes of CO₂ emissions annually – equivalent to taking a third of all cars off UK roads – and employs 65,000 people directly, while supporting a further 95,000 indirect jobs across the UK in nuclear fuel manufacturing, operation, new build, construction, decommissioning, and other associated activities.

But with all but one of the UK current nuclear fleet (Sizewell B) set to go offline by 2030 and only one plant currently under construction (Hinkley Point C), there is a significant clean electricity gap needing to be filled in order for the decarbonisation of the energy industry to be successful.

The UK nuclear industry is looking to diversify its output from the safe, dependent power that it has provided to the UK for over 60 years. Plans for hydrogen and medical isotope production, as well as district heating, are well under way.

Our portfolio will also expand to include Clean Energy Hubs. In June 2020, Copeland Council announced the intention to build the Moorside Clean Energy Hub, which sits on the site previously owned by NuGen, for which two proposals have been put forward. One will be led by a consortium of 15 companies, including EDF, Atkins, Cavendish Nuclear and trade unions, and the other, Rolls Royce.

The Moorside Hub plans to create clean electricity and hydrogen through nuclear power, including a new 3.2GW UK EPR plant, as well as both Small Modular Reactors (SMRs) and Advanced Modular Reactors (AMRs). Plans also include renewable power and green hydrogen production, creating an integrated system on the site.

This project will provide knowledge, skills and many other invaluable contributions to the Industrial Strategy and its mission to establish the world's first net-zero carbon industrial cluster by 2040 and at least one low-carbon cluster by 2030.

The current Industrial Strategy Challenge Fund (ISCF) has proven limiting to the nuclear sector outside of the Nuclear Sector Deal (NSD), and there is no monitoring of the Fund to determine whether the money invested has led to the successful outcome the Government expected.

If the Clean Growth mission is to be effective, the Government should be enabling all low-carbon technologies. This is particularly important when thinking about zero-carbon and low-carbon clusters, which may struggle to come to fruition if not all technologies and innovations that qualify are supported appropriately.

The Government should look to extend the ISCF, and metrics should be put in place and shared with the NSD office and nuclear sector so that we can determine the success of the programme in our industry so far.

IS Foundations and Sector Deals

What data exists to evidence the impact the IS has had on the five foundations (ideas, people, infrastructure, business environment and places)? How has the IS impacted existing embedded policy areas – such as R&D funding and skills and education delivery – across Government departments?

Is the Government focusing on the right sectors and, if not, which are missing? Have they delivered growth in goods or services output, solved underlying problems (e.g. productivity or decarbonisation) and/or created or improved jobs/pay? Does the Government need to rethink/re-prioritise sector deals because of Covid-19 and Brexit?

As part of the IS, the [Nuclear Sector Deal](#) (NSD) was published in June 2018, acting as reaffirmation of the importance of the nuclear sector to national infrastructure in the UK, and a commitment between the Government and the nuclear industry to drive green economic growth and make nuclear power an integral part of a clean energy mix.

Meeting the targets of the NSD will generate greater long-term employment opportunities as well as help the regeneration of regions and supply the UK economy with more business opportunities.

In the two years since its publication, the NSD has:

- Established a Programme Management Office and five working groups (that cover the key targets of the NSD and loosely follow the IS's five foundations) to support and monitor the delivery of NSD objectives, and to coordinate and integrate the sector to operate in a more coherent and collaborative way, thus generating more opportunities for growth. The main focus has been to lay solid foundations to ensure the long-term sustainability of the NSD programme and establish the right metrics to measure and deliver social-economic value.
- Published a [Gender Roadmap](#) in late 2019, outlining a growing programme of interventions to hit the NSD's target of 40% women in nuclear by 2030.
- Completed a comprehensive analysis of the key factors that will reduce the costs of new nuclear power plants by 30%.
- Published the UK's first [National Decommissioning and Waste Management Pipeline](#) – jointly developed by the Government, and the defence and civil nuclear industries.
- Undertaken collaborative work with the local and national supply chains to allow new companies to support nuclear activities in the future, introducing new innovations and investment into the sector. This activity is ongoing.
- Launched various programmes, competitions and grants, such as the Nuclear Innovation Programme: Advanced Manufacturing and Materials Contest to promote research and innovation in the sector.

These achievements are key to the NSD's wider goal of increasing long-term jobs and encouraging economic growth, as well as making the UK nuclear sector a more attractive place to invest – both nationally and internationally.

However, the NSD has faced some challenges that should be resolved by the Government in order for NSD to continue in its successes. They are:

- Need for clarity on Government policy regarding nuclear as detailed above.
- Level 8 apprenticeships have been withdrawn by the Department of Education.
- Government should reprioritise budgets and resources to provide the fastest and most cost-effective solutions for economic recovery and growth by investing in key current and future technologies.
- A lack of commitment and effective communication from the Government's Nuclear Decommissioning Authority, which will have negative consequences on a fast, effective and sustainable economic recovery, as well as the delivery of NSD objectives.
- A clear response to Covid-19 and the Net Zero target must be incorporated into NSD objectives once the sector strategy has been agreed.

Measuring Success

Has the IS increased national and regional GDP and GDP per capita and should it aim to deliver a more inclusive and sustainable economy? How should IS success be measured and are current tools/metrics adequate, especially if seeking to deliver goals broader than GDP?

Local communities are the heart of the nuclear industry, with nuclear projects often supporting regions that are far removed from the infrastructure benefits of city life, such as Copeland, Hartlepool, Anglesey and Bridgwater. Moreover, the sector has showcased how to successfully

engage with and support local economies, through the creation of jobs, supply chains and educational resources.

As has historically been the case, a future investment programme in the nuclear industry – supported by the IS and the NSD – will drive regional economic growth, innovation, and centres of excellence beyond metropolitan areas. The North West Nuclear Arc spanning from Anglesey in North Wales, across to Manchester and beyond to West Cumbria is well placed to benefit, along with the East and South West of England.

Two examples for how nuclear has benefitted UK regions are:

Hinkley Point C, Suffolk (New Build)	Sellafield, Cumbria (Decommissioning)
<p>HPC has created 10,300 job opportunities to date and are on track to deliver a peak of 25,000 jobs during its construction phase of the project</p>	<p>Of the £2.1m GVA contribution made by Sellafield, some 70% was generated in Cumbria and Warrington</p>
<p>40% of the workforce has been recruited from the local area, surpassing its target of 34% during construction</p>	<p>Most is concentrated in Copeland, where it sustains nearly 60% of Copeland’s GVA</p>
<p>£1.67bn has been spent with companies in the South West to date, again surpassing its target of £1.5bn during construction</p>	<p>Sellafield sustains over 40,000 jobs, most of which are based in Cumbria and Warrington</p>
<p>The nuclear industry has also benefitted nationally, with 64% of the value of HPC contracts going to UK-based companies</p>	<p>Almost 60% of the workforce at Sellafield are local, and the average salary is nearly £10,000 above the national average</p>
<p>£119m has been spent on the local community, supporting areas such as economic development, tourism, health, leisure and infrastructure</p>	<p>Copeland’s productivity is almost 35% above the regional average and GVA per job levels are 40% higher than the UK average and over 10% higher than UK manufacturing</p>
<p>Is part of a consortium that opened a British welding centre at the local Bridgwater College, which aims to train up to 500 welders a year</p>	<p>Social impact is at the heart of Sellafield’s corporate strategy, including working with local schools to develop STEM skills</p>

Specifically, for the nuclear industry, the NSD has not been in place long enough to determine GDP in each of the five foundations of the IS as the main NSD targets are long-term and stretch to 2030.

However, in the innovation space of the nuclear industry we have seen significant investment nationally and regionally. For example, the Civil Nuclear Sharing in Growth Programme – supported by Rolls-Royce and the Government’s Regional Growth Fund – helped 8 companies in the UK manufacturing supply chain secure £583m of orders, create or safeguard 6,970 jobs and commit to an additional £53.1m private investment. Each company started the programme with £1m match funding.

Support for the nuclear industry through robust regulatory and financial policies from the Government would only further increase the success of the IS, NSD and similar initiatives.

As recognised by the BEIS Committee, the Committee and IS should consider metrics beyond GDP. The NSD is not alone in having important targets that are non-economic, for example, its aim to have 40% women in the workforce by 2030. These may have to be done on a case-by-case basis so that the metrics are effective in determining the success of a certain target.

The NSD team – with support from Government and industry – is currently working on its own KPI and metrics system which will help track the success of its main aims as well as underpinning targets, which should go live in Autumn 2020. The Government should look at case studies like these to determine best practice in other industries that it looks to support with the IS.