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|--|---|
| <b>Title:</b><br><b>Amendments to S46 Energy Act 2008</b><br><b>Lead department or agency:</b><br>Department of Energy and Climate Change<br><b>Other departments or agencies:</b> | <b>Impact Assessment (IA)</b>               |
|  | <b>IA No:</b> DECC0021                      |
|  | <b>Date:</b> 01/12/2010                     |
|  | <b>Stage:</b> Final                         |
|  | <b>Source of intervention:</b> Domestic     |
|  | <b>Type of measure:</b> Primary legislation |
|  | <b>Contact for enquiries:</b>               |

## Summary: Intervention and Options

|   |   |
|---|---|
| <b>What is the problem under consideration? Why is government intervention necessary?</b><br>Amendments to the Energy Act 2008 are required to ensure that there is an appropriate balance between the Secretary of State's powers to protect the taxpayer by modifying an Operator's Funded Decommissioning Programme (which is a legal requirement on the Operator) and the Operator's need for clarity over how those powers will be exercised.  |   |
| <b>What are the policy objectives and the intended effects?</b><br>To enable the Secretary of State to give investors in new nuclear power stations the certainty they need to finance very significant, long-term investments consistent with ensuring that prudent provision is made for the operators liabilities.   |   |
| <b>What policy options have been considered? Please justify preferred option (further details in Evidence Base)</b><br>The non-legislative alternatives that have been considered are letters of comfort or other statements by the Secretary of State issued at the time of approval of an Operator's FDP which would allow the Operator to create legitimate expectations on how the SoS might act in the future in relation to exercising his powers to modify. It was not felt that these would offer operators clarity for a sufficiently long period of time (and would probably be limited to the life of a Parliament) to reduce perceived levels of regulatory risk. |   |
| <b>When will the policy be reviewed to establish its impact and the extent to which the policy objectives have been achieved?</b>   | It will be reviewed on an ongoing basis |
| <b>Are there arrangements in place that will allow a systematic collection of monitoring information for future policy review?</b>  | Not applicable                          |

**SELECT SIGNATORY Sign-off** For consultation stage Impact Assessments:

*I have read the Impact Assessment and I am satisfied that, given the available evidence, it represents a reasonable view of the likely costs, benefits and impact of the leading options.*

Signed by the responsible Minister: 

01/12/2010 ..... Date:

# Summary: Analysis and Evidence

# Policy Option 1

Description:

| Price Base Year | PV Base Year | Time Period Years | Net Benefit (Present Value (PV)) (£m) |                |                |
|-----------------|--------------|-------------------|---------------------------------------|----------------|----------------|
|                 |              |                   | Low: Optional                         | High: Optional | Best Estimate: |

| COSTS (£m)    | Total Transition (Constant Price) Years | Average Annual (excl. Transition) (Constant Price) | Total Cost (Present Value) |
|---------------|---|--|----------------------------|
| Low           | Optional                                | Optional   | <b>Optional</b>            |
| High          | Optional                                | Optional   | <b>Optional</b>            |
| Best Estimate |   |  |                            |

### Description and scale of key monetised costs by 'main affected groups'

It is not expected that these amendments will impose any costs that are significantly incremental to cost of compliance with the existing regime as set out in the Energy Act 2008.

### Other key non-monetised costs by 'main affected groups'

| BENEFITS (£m) | Total Transition (Constant Price) Years | Average Annual (excl. Transition) (Constant Price) | Total Benefit (Present Value) |
|---------------|---|--|-------------------------------|
| Low           | Optional                                | Optional   | <b>Optional</b>               |
| High          | Optional                                | Optional   | <b>Optional</b>               |
| Best Estimate |   |  |                               |

### Description and scale of key monetised benefits by 'main affected groups'

The monetised benefits of this measure cannot easily be calculated for prospective nuclear operators, of which there are only three. However, the cost of new nuclear generation is very sensitive to the cost of capital faced by investors. Recent analysis by Mott MacDonald showed that a reduction in the in the real discount rate from 10% to 7.5% reduces the levelised costs of nuclear generation by approximately £14/MWh for 'Nth of a Kind' plant with construction commencing in 2023.

### Other key non-monetised benefits by 'main affected groups'

This reform is expected to reduce the level of regulatory risk to which Operators and their Parent Companies are perceived (by bondholders and unsecured creditors of nuclear operators or their parent Companies) to be exposed to from UK Government actions.

### Key assumptions/sensitivities/risks

none

### Discount rate (%)

|                                   |                                     |          |
|-----------------------------------|-------------------------------------|----------|
| Impact on admin burden (AB) (£m): | Impact on policy cost savings (£m): | In scope |
| New AB:                           | Policy cost savings:                | Yes/No   |
| AB savings:                       | Net:                                |          |

## Enforcement, Implementation and Wider Impacts

|   |                        |      |                    |        |       |
|---|------------------------|------|--------------------|--------|-------|
| What is the geographic coverage of the policy/option?   | England and Wales , NI |      |                    |        |       |
| From what date will the policy be implemented?  | 2011                   |      |                    |        |       |
| Which organisation(s) will enforce the policy?  | DECC                   |      |                    |        |       |
| What is the annual change in enforcement cost (£m)?   | Nil                    |      |                    |        |       |
| Does enforcement comply with Hampton principles?  | Yes                    |      |                    |        |       |
| Does implementation go beyond minimum EU requirements?  | N/A                    |      |                    |        |       |
| What is the CO <sub>2</sub> equivalent change in greenhouse gas emissions?<br>(Million tonnes CO <sub>2</sub> equivalent) | Traded:<br>N/A         |      | Non-traded:<br>N/A |        |       |
| Does the proposal have an impact on competition?  | No                     |      |                    |        |       |
| What proportion (%) of Total PV costs/benefits is directly attributable to primary legislation, if applicable?            | Costs:<br>n/a          |      | Benefits:<br>100   |        |       |
| Annual cost (£m) per organisation<br>(excl. Transition) (Constant Price)  | Micro                  | < 20 | Small              | Medium | Large |
| Are any of these organisations exempt?  | No                     | No   | No                 | No     | No    |

## Specific Impact Tests: Checklist

Set out in the table below where information on any SITs undertaken as part of the analysis of the policy options can be found in the evidence base. For guidance on how to complete each test, double-click on the link for the guidance provided by the relevant department.

Please note this checklist is not intended to list each and every statutory consideration that departments should take into account when deciding which policy option to follow. It is the responsibility of departments to make sure that their duties are complied with.

| Does your policy option/proposal have an impact on...?  | Impact | Page ref within IA |
|---|--------|--------------------|
| <b>Statutory equality duties</b> <sup>1</sup><br><a href="#">Statutory Equality Duties Impact Test guidance</a> | No     |                    |
| <b>Economic impacts</b>   |        |                    |
| Competition <a href="#">Competition Assessment Impact Test guidance</a>   | No     |                    |
| Small firms <a href="#">Small Firms Impact Test guidance</a>  | No     |                    |
| <b>Environmental impacts</b>  |        |                    |
| Greenhouse gas assessment <a href="#">Greenhouse Gas Assessment Impact Test guidance</a>                        | No     |                    |
| Wider environmental issues <a href="#">Wider Environmental Issues Impact Test guidance</a>                      | Yes    |                    |
| <b>Social impacts</b>   |        |                    |
| Health and well-being <a href="#">Health and Well-being Impact Test guidance</a>                                | Yes    |                    |
| Human rights <a href="#">Human Rights Impact Test guidance</a>  | No     |                    |
| Justice system <a href="#">Justice Impact Test guidance</a>   | No     |                    |
| Rural proofing <a href="#">Rural Proofing Impact Test guidance</a>  | No     |                    |
| <b>Sustainable development</b><br><a href="#">Sustainable Development Impact Test guidance</a>                  | Yes    |                    |

<sup>1</sup> Race, disability and gender Impact assessments are statutory requirements for relevant policies. Equality statutory requirements will be expanded 2011, once the Equality Bill comes into force. Statutory equality duties part of the Equality Bill apply to GB only. The Toolkit provides advice on statutory equality duties for public authorities with a remit in Northern Ireland.

## Evidence Base (for summary sheets) – Notes

Use this space to set out the relevant references, evidence, analysis and detailed narrative from which you have generated your policy options or proposal. Please fill in **References** section.

### References

Include the links to relevant legislation and publications, such as public impact assessment of earlier stages (e.g. Consultation, Final, Enactment).

| No. | Legislation or publication  |
|-----|---|
| 1   | <a href="http://www.legislation.gov.uk/ukpga/2004/20/contents">http://www.legislation.gov.uk/ukpga/2004/20/contents</a> |
| 2   |   |
| 3   |   |
| 4   |   |

### Evidence Base

Ensure that the information in this section provides clear evidence of the information provided in the summary pages of this form (recommended maximum of 30 pages). Complete the **Annual profile of monetised costs and benefits** (transition and recurring) below over the life of the preferred policy (use the spreadsheet attached if the period is longer than 10 years).

The spreadsheet also contains an emission changes table that you will need to fill in if your measure has an impact on greenhouse gas emissions.

#### Annual profile of monetised costs and benefits\* - (£m) constant prices

|                           | Y <sub>0</sub> | Y <sub>1</sub> | Y <sub>2</sub> | Y <sub>3</sub> | Y <sub>4</sub> | Y <sub>5</sub> | Y <sub>6</sub> | Y <sub>7</sub> | Y <sub>8</sub> | Y <sub>9</sub> |
|---------------------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|
| Transition costs          |                |                |                |                |                |                |                |                |                |                |
| Annual recurring cost     |                |                |                |                |                |                |                |                |                |                |
| Total annual costs        |                |                |                |                |                |                |                |                |                |                |
| Transition benefits       |                |                |                |                |                |                |                |                |                |                |
| Annual recurring benefits |                |                |                |                |                |                |                |                |                |                |
| Total annual benefits     |                |                |                |                |                |                |                |                |                |                |

\* For non-monetised benefits please see summary pages and main evidence base section

Not applicable.

## Evidence Base (for summary sheets)

### Policy background:

1. The Energy Act 2008 (the Act) requires that operators of new nuclear power stations must have in place secure financing arrangements in order to meet the full costs of decommissioning and their full share of waste management costs. It requires the operator of a new nuclear power station to submit to the Secretary of State a Funded Decommissioning Programme (FDP) for approval before construction of the new power station commences.
2. Once an FDP is approved, the Secretary of State has the power under S48 of the Act to modify an FDP by following the procedure set out in S49 of the Act with a view to securing that prudent provision is made for an operator's full costs of decommissioning and their full share of waste management costs. The Act also provides, under S56, protection where a security provider becomes insolvent such that any security provided in support of a FDP will be applied as per the terms of the FDP or other arrangement, notwithstanding insolvency law. S56, therefore, sets aside insolvency law in relation to the securities provided for the performance of obligations under the FDP. The effect of S56 is to derank other unsecured creditors in the event of the security provider becoming insolvent.
3. The objectives of these provisions is to ensure operators meet the full costs of decommissioning and their full share of waste management costs and that the risk of non-payment to the taxpayer is remote at all times.

### Problem under consideration:

4. A proposal made by the Secretary of State under section 48 can impose obligations or additional obligations on a corporate body associated with the site operator (for example a parent company or a sibling company). This power is only constrained by the normal principles of administrative law and the requirement that it be exercised with a view to securing prudent provision for the operator's liabilities. The relatively unconstrained nature of the Secretary of State's power to amend an FDP (the FDP will be in place throughout the life of the station which will be many decades) potentially increases the perceived levels of regulatory risk to which the operator and its associated bodies corporate are exposed to.
5. The proposed amendments to the Act will provide an enabling power that will allow the Secretary of State to enter into an agreement at the time an FDP is approved that will set out the manner in which he will exercise his powers to modify an FDP in accordance with the principle of securing prudent provision for the operators liabilities. The effect of this agreement will be to give the operator greater certainty over how the Secretary of State will act and hence reduce the perceived levels of regulatory risk to which the operator and its associated bodies corporate are exposed. The objective of these amendments is, therefore, to reduce perceived levels of regulatory risk.

### Non legislative options considered:

6. The 'do nothing' option was considered and ruled out on the grounds that the legislation as currently drafted may not provide an appropriate balance between the Secretary of State's powers to protect the taxpayer by modifying an Operator's FDP and the Operator's need for clarity over how those powers will be exercised. It was concluded that this potential imbalance might represent a significant barrier to investment in new nuclear taking place which would, in turn, impact on the achievement of the Government's wider climate change and energy security objectives.

7. Other non-legislative options were considered such as the Secretary of State providing letters of comfort, or in some other way, issuing statements upon which the operator could create a legitimate expectation over how the Secretary of State would act in future in exercising his functions. It was concluded, however, that such expectations would only be legitimate for a short period of time relative to the many decades over which the FDP will be in force.

#### Costs and benefits:

8. It is not envisaged that there will be any significant costs to the operator from this provision that are additional to the cost of compliance with the regime as already set out in the Act. If an agreement is entered into (which is by no means certain since the provisions is only an enabling provision), there will be some additional administrative and legal fees from drafting and negotiating the agreement but these costs are unlikely to be significant alongside the costs of drafting and negotiating the FDP which is itself a highly complex, legally binding document. Moreover, any additional costs to the operator can be viewed in the context of the significant up-front capital costs for a new nuclear power station, which are estimated to be in the region of £2.9 billion - £4.4 billion per GW for a First of a Kind plant<sup>2</sup>.
9. These measures are designed to reduce perceived levels of regulatory risk faced by nuclear operators. To the extent that lenders perceive those lower risks, this will provide a benefit to nuclear operators in terms of cost of capital. The cost of capital is an important driver of the levelised cost of capital intensive generation technologies, such as nuclear power stations, as it determines the weight given to near and distant cash flows. As the high capital costs of nuclear projects occur during the construction period, the levelised cost will be reduced in line with a lower cost of capital. The monetised benefits of this measure cannot be calculated for any of the prospective nuclear operators with any worthwhile degree of accuracy. However, recent analysis by Mott MacDonald<sup>3</sup> on the costs of electricity generation technologies showed that a reduction in the in the real discount rate from 10% to 7.5% would reduce the costs of nuclear generation by approximately £14/MWh for 'Nth of a Kind' plant with construction commencing in 2023.

#### Risks and Assumptions:

10. The objective of these amendments is to allow the Secretary of State to act in certain ways that will reduce perceived levels of regulatory risk (consistent with securing prudent provision) around new nuclear investment. The risk to the successful achievement of this objective is that, having enabled the Secretary of State to enter into an agreement, he is unable to agree terms with the operator such that i) prudent provision is secured; and ii) that the investment takes place. This is, however, entirely consistent with the Government's policy that it is for the private sector to develop nuclear power stations within a framework developed by Government. If the private sector assesses that the risks are too high, the investment will not take place.

#### Administrative burden:

11. See paragraph 8 on costs and benefits.

#### Wider impacts:

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<sup>2</sup> Mott MacDonald, UK Electricity Generation Costs Update, June 2010  
<http://www.decc.gov.uk/assets/decc/statistics/projections/71-uk-electricity-generation-costs-update-.pdf>

<sup>3</sup> Mott MacDonald, UK Electricity Generation Costs Update, June 2010  
<http://www.decc.gov.uk/assets/decc/statistics/projections/71-uk-electricity-generation-costs-update-.pdf>

12. See annex 2.

**Summary, preferred option and implementation plan:**

13. Following an assessment of the non-legislative options to reduce levels of perceived regulatory risk around the Secretary of State's ability to modify an FDP it was concluded that only legislative options, that is amendments to the Energy Act 2008, would give sufficient certainty to prospective operators of nuclear power stations. However, the objective is to reduce perceived levels of risk which should be of some benefit to operators although this is very difficult to quantify. The associated costs are not thought to be significant over and above the costs of compliance with the regime as already set out in the Act at present.

14. The amendments will be implemented through the Energy Bill.

## Annexes

Annex 1 should be used to set out the Post Implementation Review Plan as detailed below. Further annexes may be added where the Specific Impact Tests yield information relevant to an overall understanding of policy options.

### Annex 1: Post Implementation Review (PIR) Plan

A PIR should be undertaken, usually three to five years after implementation of the policy, but exceptionally a longer period may be more appropriate. A PIR should examine the extent to which the implemented regulations have achieved their objectives, assess their costs and benefits and identify whether they are having any unintended consequences. Please set out the PIR Plan as detailed below. If there is no plan to do a PIR please provide reasons below.

|   |
|---|
| <p><b>Basis of the review:</b> [The basis of the review could be statutory (forming part of the legislation), it could be to review existing policy or there could be a political commitment to review];</p>  |
| <p><b>Review objective:</b> [Is it intended as a proportionate check that regulation is operating as expected to tackle the problem of concern?; or as a wider exploration of the policy approach taken?; or as a link from policy objective to outcome?]</p>   |
| <p><b>Review approach and rationale:</b> [e.g. describe here the review approach (in-depth evaluation, scope review of monitoring data, scan of stakeholder views, etc.) and the rationale that made choosing such an approach]</p>   |
| <p><b>Baseline:</b> [The current (baseline) position against which the change introduced by the legislation can be measured]</p>  |
| <p><b>Success criteria:</b> [Criteria showing achievement of the policy objectives as set out in the final impact assessment; criteria for modifying or replacing the policy if it does not achieve its objectives]</p>   |
| <p><b>Monitoring information arrangements:</b> [Provide further details of the planned/existing arrangements in place that will allow a systematic collection systematic collection of monitoring information for future policy review]</p>   |
| <p><b>Reasons for not planning a PIR:</b> [If there is no plan to do a PIR please provide reasons here]</p> <p>This is an enabling provision that may, or may not, be used by the Secretary of State depending on the discussions between the Secretary of State and the prospective nuclear operator. A formal review would not, in this case, be appropriate.</p> |



## Annex 2 – Specific Impact Tests

1. This proposal affects the regulatory processes in relation to investment in new nuclear power stations. All the companies likely to build new nuclear power stations will face the same legislation.
2. The draft Nuclear National Policy Statement, which sets out the Government's planning policy for the construction of new nuclear power stations, has been subject to an appraisal of sustainability. This has assessed the sustainability of nuclear power and identified the potential for positive effects in meeting the Government's climate change and security of supply objectives.

### Carbon reduction

3. The Nuclear White paper sets out the Government's conclusions that nuclear power stations emit lower emissions than fossil-fuelled generation and is on a par with wind. As an illustration, it explained the impact emissions if our existing nuclear power stations were replaced by gas (8million tonnes of CO<sub>2</sub>) or coal (16 MtC). It concludes that new nuclear power stations could contribute significantly to meeting the Government's climate change objectives by displacing CO<sub>2</sub>.

### Other Environment

4. The Nuclear National Policy Statement, which sets out the Government's planning policy for the construction of new nuclear power stations, has been subject to an appraisal of sustainability. This has assessed the sustainability of nuclear power and identified the potential for positive effects in meeting the Government's climate change and security of supply objectives.

### Health

5. The Nuclear White Paper sets out the Government's conclusions that new nuclear power stations would pose very small risks to health and that the UK has an effective regulatory framework that ensures that those risks are minimised and sensibly managed. Furthermore the Government has published for consultation its proposed decision on Regulatory Justification which finds that the inherent systems in place for both the AP1000 and the EPR and compliance with the UK's robust regulatory regimes mean that the risk of radiological health detriment is very small.

### Equality Impact Assessment

6. After initial screening as to the potential impact of this policy/regulation on race, disability and gender equality it has been decided that there will not be a major impact upon minority groups in terms of numbers affected or the seriousness of the likely impact, or both.