

<b>Title:</b> <b>Proposed legislation to implement the amended Paris and Brussels Conventions on nuclear 3rd party liability</b>  <b>Lead department or agency:</b> DECC <b>Other departments or agencies:</b> Defra, HMT, Ministry of Justice, Department for Transport	<b>Impact Assessment (IA)</b>
	<b>IA No:</b> DECC 0037
	<b>Date:</b> 24/01/2011
	<b>Stage:</b> Consultation
	<b>Source of intervention:</b> International
	<b>Type of measure:</b> Secondary legislation
<b>Contact for enquiries:</b> Kate Ward 030 0068 5645 kate.ward@decc.gsi.gov.uk	

## Summary: Intervention and Options

### What is the problem under consideration? Why is government intervention necessary?

Need to implement changes to the Paris Convention on nuclear 3rd party liability and the Brussels Supplementary Convention by amending the Nuclear Installations Act 1965 (as amended).

Government intervention is needed because legislative change is required to give effect to the Convention changes.

### What are the policy objectives and the intended effects?

- 1) To ensure there is a fair and easily obtained compensation for third party damage in the unlikely event of a nuclear incident, and to ensure an increased amount of compensation is available to a larger number of claimants for a wider range of damage as a consequence, while transferring more responsibility for paying this compensation from the taxpayer to nuclear operators.
- (2) Continue to facilitate the operations of the nuclear industry in the UK, including the development of new nuclear power stations, which contribute to the Government's objectives on security of energy supply and low carbon electricity generation and dealing with the nuclear legacy.
- (3) Compliance with international Treaty obligations.

### What policy options have been considered, including any alternatives to regulation? Please justify preferred option (further details in Evidence Base)

The factors on which the Government needs to make a decision on in terms of implementing the Conventions are: (1) the financial level at which to set nuclear operators' liability; (2) applying the discretion to set a lower level of liability for low hazard sites, and (3) applying the discretion to set a lower level of liability for low risk transport. The options considered are: (1) set the liability to €700m; (2) set at €700m and review after 5 years; (3) phase in €1200m; (4) set uncapped liability on operators.

The Government's preferred options are: (a) to set a liability level of €1200m, phased in, for standard sites which transfers the contingent liability, that would otherwise be on the public purse, to the operator; (b) to continue to apply the lower liability limit for low hazard sites; and (c) explore the scope to use existing legislation to set liability limits for transport, as these offer a proportionate approach.

**Will the policy be reviewed?** It will be reviewed. **If applicable, set review date:** Month/Year

**What is the basis for this review?** PIR. **If applicable, set sunset clause date:** Month/Year

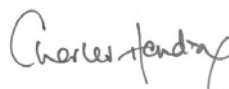
**Are there arrangements in place that will allow a systematic collection of monitoring information for future policy review?**

No

**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:



Date: 24/01/2011

**Description:**

Implement with minimum liability set at €700m

Price Base Year 2010	PV Base Year 2011	Time Period Years 30	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	Optional
High	Optional		Optional	Optional
Best Estimate				Unknown

**Description and scale of key monetised costs by ‘main affected groups’**

Main impact will be on nuclear site licensees (operators). Additional costs will be based on the need for financial security of €700m and increased scope of liabilities, however at this stage it is not possible to monetise this. Feedback from consultation and further discussions with industry and insurers may offer information on the scale of costs.

**Other key non-monetised costs by ‘main affected groups’**

Government would have exposure once operator liability level has been exhausted. However, the cost of having this contingent liability has not been monetised. Expected to be of low probability due to the robust nuclear safety regulatory arrangements operators have to meet.

BENEFITS (£m)	Total Transition (Constant Price) Years		Average Annual (excl. Transition) (Constant Price)	Total Benefit (Present Value)
Low	Optional		Optional	Optional
High	Optional		Optional	Optional
Best Estimate				Unknown

**Description and scale of key monetised benefits by ‘main affected groups’**

Increase in amount to be paid by operator for a nuclear incident from current £140m to €700m.

**Other key non-monetised benefits by ‘main affected groups’**

Actions under tort are minimised.  
 Compensation available for wider range of damage, and operators' responsibility for personal injury claims is extended from 10 to 30 years (responsibility transferred from the State).  
 Increased geographical scope means compensation will be available for damage incurred in a wider range of places.

**Key assumptions/sensitivities/risks**

Discount rate (%) 3.5

Key assumptions are:

- (1) the insurance market is immediately able to take on the minimum level of risk and provide cover, and will cover more risk to upper limit over time
- (2) based on the current number of 31 civil nuclear licensed sites
- (3) assumes the number of low risk sites will remain very few

Key risk that the insurance market is unable to provide full cover for all the liabilities and Government may need to look at intervening, for example by providing reinsurance for a charge that reflects our assessment of the probability of a major incident occurring and its potential magnitude.

<b>Direct impact on business (Equivalent Annual) £m):</b>			<b>In scope of OIOO?</b>	<b>Measure qualifies as</b>
Costs:	Benefits:	Net:	No	NA

## Enforcement, Implementation and Wider Impacts

What is the geographic coverage of the policy/option?	United Kingdom				
From what date will the policy be implemented?	01/01/2012				
Which organisation(s) will enforce the policy?	DECC				
What is the annual change in enforcement cost (£m)?	minimal				
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? (Million tonnes CO <sub>2</sub> equivalent)	<b>Traded:</b> NA		<b>Non-traded:</b> NA		
Does the proposal have an impact on competition?	No				
What proportion (%) of Total PV costs/benefits is directly attributable to primary legislation, if applicable?	<b>Costs:</b> NA		<b>Benefits:</b> NA		
Distribution of annual cost (%) by organisation size (excl. Transition) (Constant Price)	<b>Micro</b> NA	<b>&lt; 20</b> NA	<b>Small</b> NA	<b>Medium</b>	<b>Large</b>
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<sup>1</sup></b> <a href="#">Statutory Equality Duties Impact Test guidance</a>	No	23
<b>Economic impacts</b>		
Competition <a href="#">Competition Assessment Impact Test guidance</a>	No	23
Small firms <a href="#">Small Firms Impact Test guidance</a>	No	23
<b>Environmental impacts</b>		
Greenhouse gas assessment <a href="#">Greenhouse Gas Assessment Impact Test guidance</a>	No	24
Wider environmental issues <a href="#">Wider Environmental Issues Impact Test guidance</a>	No	24
<b>Social impacts</b>		
Health and well-being <a href="#">Health and Well-being Impact Test guidance</a>	No	24
Human rights <a href="#">Human Rights Impact Test guidance</a>	No	24
Justice system <a href="#">Justice Impact Test guidance</a>	No	23
Rural proofing <a href="#">Rural Proofing Impact Test guidance</a>	No	24
<b>Sustainable development</b> <a href="#">Sustainable Development Impact Test guidance</a>	No	24

<sup>1</sup> Public bodies including Whitehall departments are required to consider the impact of their policies and measures on race, disability and gender. It is intended to extend this consideration requirement under the Equality Act 2010 to cover age, sexual orientation, religion or belief and gender reassignment from April 2011 (to Great Britain only). The Toolkit provides advice on statutory equality duties for public authorities with a remit in Northern Ireland.

# Summary: Analysis and Evidence

# Policy Option 2

## Description:

Implement with a minimum liability level of €700m and review after 5 years

Price Base Year 2010	PV Base Year 2011	Time Period Years 30	Net Benefit (Present Value (PV)) (£m)		
			Low: Optional	High: Optional	Best Estimate:
<b>COSTS (£m)</b>	<b>Total Transition</b> (Constant Price) Years		<b>Average Annual</b> (excl. Transition) (Constant Price)		<b>Total Cost</b> (Present Value)
Low	Optional		Optional		<b>Optional</b>
High	Optional		Optional		<b>Optional</b>
Best Estimate					<b>Unknown</b>
<b>Description and scale of key monetised costs by 'main affected groups'</b> Same as Option 1 since operator liability will be set at €700 million.					
<b>Other key non-monetised costs by 'main affected groups'</b> Same as Option 1.					
<b>BENEFITS (£m)</b>	<b>Total Transition</b> (Constant Price) Years		<b>Average Annual</b> (excl. Transition) (Constant Price)		<b>Total Benefit</b> (Present Value)
Low	Optional		Optional		<b>Optional</b>
High	Optional		Optional		<b>Optional</b>
Best Estimate					<b>Unknown</b>
<b>Description and scale of key monetised benefits by 'main affected groups'</b> Increase in amount to be paid by operator for a nuclear incident from current £140m to €700m.					
<b>Other key non-monetised benefits by 'main affected groups'</b> Same as Option 1.					
<b>Key assumptions/sensitivities/risks</b>					<b>Discount rate (%)</b> 3.5
<p>Key assumptions are:</p> <p>(1) the insurance market is immediately able to take on the minimum level of risk and provide cover, and will cover more risk to upper limit over time</p> <p>(2) based on the current number of 31 civil nuclear licensed sites</p> <p>(3) assumes the number of low risk sites will remain very few</p> <p>Key risk that the insurance market is unable to provide full cover for all the liabilities and Government may need to look at intervening, for example by providing reinsurance for a charge that reflects our assessment of the probability of a major incident occurring and its potential magnitude.</p>					
<b>Direct impact on business (Equivalent Annual) £m):</b>			<b>In scope of OIOO?</b>	<b>Measure qualifies as</b>	
<b>Costs:</b>	<b>Benefits:</b>	<b>Net:</b>	No	NA	

## Enforcement, Implementation and Wider Impacts

What is the geographic coverage of the policy/option?			United Kingdom		
From what date will the policy be implemented?			01/01/2012		
Which organisation(s) will enforce the policy?			DECC		
What is the annual change in enforcement cost (£m)?			minimal		
Does enforcement comply with Hampton principles?			No		
Does implementation go beyond minimum EU requirements?			N/A		
What is the CO <sub>2</sub> equivalent change in greenhouse gas emissions? (Million tonnes CO <sub>2</sub> equivalent)			<b>Traded:</b> N/A	<b>Non-traded:</b> 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?			<b>Costs:</b> NA	<b>Benefits:</b> NA	
Distribution of annual cost (%) by organisation size (excl. Transition) (Constant Price)	<b>Micro</b> NA	<b>&lt; 20</b> NA	<b>Small</b> Na	<b>Medium</b>	<b>Large</b>
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<sup>1</sup></b> <a href="#">Statutory Equality Duties Impact Test guidance</a>	No	23
<b>Economic impacts</b>		
Competition <a href="#">Competition Assessment Impact Test guidance</a>	No	23
Small firms <a href="#">Small Firms Impact Test guidance</a>	No	23
<b>Environmental impacts</b>		
Greenhouse gas assessment <a href="#">Greenhouse Gas Assessment Impact Test guidance</a>	No	24
Wider environmental issues <a href="#">Wider Environmental Issues Impact Test guidance</a>	No	24
<b>Social impacts</b>		
Health and well-being <a href="#">Health and Well-being Impact Test guidance</a>	No	24
Human rights <a href="#">Human Rights Impact Test guidance</a>	No	24
Justice system <a href="#">Justice Impact Test guidance</a>	No	23
Rural proofing <a href="#">Rural Proofing Impact Test guidance</a>	No	24
<b>Sustainable development</b> <a href="#">Sustainable Development Impact Test guidance</a>	No	24

<sup>1</sup> Public bodies including Whitehall departments are required to consider the impact of their policies and measures on race, disability and gender. It is intended to extend this consideration requirement under the Equality Act 2010 to cover age, sexual orientation, religion or belief and gender reassignment from April 2011 (to Great Britain only). The Toolkit provides advice on statutory equality duties for public authorities with a remit in Northern Ireland.

# Summary: Analysis and Evidence

# Policy Option 3

## Description:

Implement with a progressive increase in liability from €700m to €1200m

Price Base Year 2010	PV Base Year 2011	Time Period Years 30	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	Optional
High	Optional	Optional	Optional
Best Estimate			Unknown

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

Main impact will be on nuclear site licensees (operators). Additional costs will be based on increased scope of liabilities and financial security rising from €700m to €1200m. However, at this stage it is not possible to monetise this. Feedback from consultation and further discussions with industry and insurers may offer information on the scale of costs.

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

None

BENEFITS (£m)	Total Transition (Constant Price) Years	Average Annual (excl. Transition) (Constant Price)	Total Benefit (Present Value)
Low	Optional	Optional	Optional
High	Optional	Optional	Optional
Best Estimate			Unknown

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

Increase in amount to be paid by operator for a nuclear incident from current £140m to €700m, rising to €1200m.

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

Same as Option 1, and  
Transfer to operators the contingent liability (of €500m) which would otherwise remain with the public purse.

### Key assumptions/sensitivities/risks

Discount rate (%)

3.5

Key assumptions are:

- (1) the insurance market is immediately able to take on the minimum level of risk and provide cover, and will cover more risk to upper limit over time
- (2) based on the current number of 31 civil nuclear licensed sites
- (3) assumes the number of low risk sites will remain very few

Key risk that the insurance market is unable to provide full cover for all the liabilities and Government may need to look at intervening, for example by providing reinsurance for a charge that reflects our assessment of the probability of a major incident occurring and its potential magnitude.

Direct impact on business (Equivalent Annual) £m):			In scope of OIOO?	Measure qualifies as
Costs:	Benefits:	Net:	No	NA

## Enforcement, Implementation and Wider Impacts

What is the geographic coverage of the policy/option?	United Kingdom				
From what date will the policy be implemented?	01/01/2012				
Which organisation(s) will enforce the policy?	DECC				
What is the annual change in enforcement cost (£m)?	minimal				
Does enforcement comply with Hampton principles?	Yes				
Does implementation go beyond minimum EU requirements?	No				
What is the CO <sub>2</sub> equivalent change in greenhouse gas emissions? (Million tonnes CO <sub>2</sub> equivalent)	<b>Traded:</b> NA		<b>Non-traded:</b> NA		
Does the proposal have an impact on competition?	No				
What proportion (%) of Total PV costs/benefits is directly attributable to primary legislation, if applicable?	<b>Costs:</b> NA		<b>Benefits:</b> NA		
Distribution of annual cost (%) by organisation size (excl. Transition) (Constant Price)	<b>Micro</b> NA	<b>&lt; 20</b> NA	<b>Small</b> NA	<b>Medium</b>	<b>Large</b>
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<sup>1</sup></b> <a href="#">Statutory Equality Duties Impact Test guidance</a>	No	23
<b>Economic impacts</b>		
Competition <a href="#">Competition Assessment Impact Test guidance</a>	No	23
Small firms <a href="#">Small Firms Impact Test guidance</a>	No	23
<b>Environmental impacts</b>		
Greenhouse gas assessment <a href="#">Greenhouse Gas Assessment Impact Test guidance</a>	No	24
Wider environmental issues <a href="#">Wider Environmental Issues Impact Test guidance</a>	No	24
<b>Social impacts</b>		
Health and well-being <a href="#">Health and Well-being Impact Test guidance</a>	No	24
Human rights <a href="#">Human Rights Impact Test guidance</a>	No	24
Justice system <a href="#">Justice Impact Test guidance</a>	No	23
Rural proofing <a href="#">Rural Proofing Impact Test guidance</a>	No	24
<b>Sustainable development</b> <a href="#">Sustainable Development Impact Test guidance</a>	No	24

<sup>1</sup> Public bodies including Whitehall departments are required to consider the impact of their policies and measures on race, disability and gender. It is intended to extend this consideration requirement under the Equality Act 2010 to cover age, sexual orientation, religion or belief and gender reassignment from April 2011 (to Great Britain only). The Toolkit provides advice on statutory equality duties for public authorities with a remit in Northern Ireland.

# Summary: Analysis and Evidence

# Policy Option 4

## Description:

Set uncapped operator limit on liability

Price Base Year 2010	PV Base Year 2011	Time Period Years 30	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	Optional
High	Optional	Optional	Optional
Best Estimate			Unknown

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

Insurance and/or other forms of financial security unlikely to be available for uncapped liability. Operators will therefore be required to have fixed level of insurance cover possibly €700m or €1200m, the costs of which will be as previous options.

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

Setting uncapped liability may deter nuclear investment in the UK.

BENEFITS (£m)	Total Transition (Constant Price) Years	Average Annual (excl. Transition) (Constant Price)	Total Benefit (Present Value)
Low	Optional	Optional	Optional
High	Optional	Optional	Optional
Best Estimate			Unknown

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

Increase in amount to be paid by operator for a nuclear incident from current £140m to a minimum of the financial security level.

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

Same as Option 1.

### Key assumptions/sensitivities/risks

Discount rate (%)

3.5

Key assumptions are:

- (1) the insurance market is immediately able to take on the minimum level of risk and provide cover, and will cover more risk to upper limit over time
- (2) based on the current number of 31 civil nuclear licensed sites
- (3) assumes the number of low risk sites will remain very few

Key risk is that the insurance market is unable to provide full cover for all the liabilities and Government may need to look at intervening, for example by providing reinsurance for a charge that reflects our assessment of the probability of a major incident occurring and its potential magnitude.

Direct impact on business (Equivalent Annual) £m):			In scope of OIOO?	Measure qualifies as
Costs:	Benefits:	Net:	No	NA



## Enforcement, Implementation and Wider Impacts

What is the geographic coverage of the policy/option?			United Kingdom		
From what date will the policy be implemented?			01/01/2012		
Which organisation(s) will enforce the policy?			DECC		
What is the annual change in enforcement cost (£m)?			minimal		
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? (Million tonnes CO <sub>2</sub> equivalent)			Traded: NA		Non-traded: NA
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: NA		Benefits: NA
Distribution of annual cost (%) by organisation size (excl. Transition) (Constant Price)	Micro NA	< 20 NA	Small NA	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<sup>1</sup></b> <a href="#">Statutory Equality Duties Impact Test guidance</a>	No	23
<b>Economic impacts</b>		
Competition <a href="#">Competition Assessment Impact Test guidance</a>	No	23
Small firms <a href="#">Small Firms Impact Test guidance</a>	No	23
<b>Environmental impacts</b>		
Greenhouse gas assessment <a href="#">Greenhouse Gas Assessment Impact Test guidance</a>	No	24
Wider environmental issues <a href="#">Wider Environmental Issues Impact Test guidance</a>	No	
<b>Social impacts</b>		
Health and well-being <a href="#">Health and Well-being Impact Test guidance</a>	No	24
Human rights <a href="#">Human Rights Impact Test guidance</a>	No	24
Justice system <a href="#">Justice Impact Test guidance</a>	No	23
Rural proofing <a href="#">Rural Proofing Impact Test guidance</a>	No	24
<b>Sustainable development</b> <a href="#">Sustainable Development Impact Test guidance</a>	No	24

<sup>1</sup> Public bodies including Whitehall departments are required to consider the impact of their policies and measures on race, disability and gender. It is intended to extend this consideration requirement under the Equality Act 2010 to cover age, sexual orientation, religion or belief and gender reassignment from April 2011 (to Great Britain 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 assessments of earlier stages (e.g. Consultation, Final, Enactment) and those of the matching IN or OUTs measures.

No.	Legislation or publication
1	<u>Nuclear Installations Act 1965 (as amended)</u> <a href="http://www.opsi.gov.uk/RevisedStatutes/Acts/ukpga/1965/cukpga_19650057_en_1">http://www.opsi.gov.uk/RevisedStatutes/Acts/ukpga/1965/cukpga_19650057_en_1</a>
2	Unofficial consolidated texts of the Paris and Brussels Supplementary Conventions, as amended <a href="http://www.nea.fr/law/nlb/nlb-75/003_020.pdf">http://www.nea.fr/law/nlb/nlb-75/003_020.pdf</a>
3	Working papers on implementation of amended Paris and Brussels Conventions <a href="http://www.decc.gov.uk/en/content/cms/what_we_do/uk_supply/energy_mix/nuclear/issues/compensation/compensation.aspx">http://www.decc.gov.uk/en/content/cms/what_we_do/uk_supply/energy_mix/nuclear/issues/compensation/compensation.aspx</a>
4	Consultation paper on the implementation of the amended Paris and Brussels Conventions <a href="http://www.decc.gov.uk/en/content/cms/consultations/paris_brussels/paris_brussels.aspx">http://www.decc.gov.uk/en/content/cms/consultations/paris_brussels/paris_brussels.aspx</a> .

+ Add another row

### 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



Microsoft Office  
Excel Worksheet

# Evidence Base (for summary sheets)

## BACKGROUND

1. The UK is a Contracting Party to the Paris Convention on nuclear third party liability and the Brussels Supplementary Convention and has been since their inception in the 1960s. The Paris Convention establishes a regime for the compensation of victims in the unlikely event of a nuclear incident. The Brussels regime ensures that additional resources, over and above those provided under the Paris Convention, are available for compensation through a three tier system. All States that are Contracting Parties to the Paris Convention<sup>1</sup> are also Contracting Parties to the Brussels Convention, except for Greece, Portugal and Turkey. The UK implements the Conventions through the Nuclear Installations Act 1965 as amended (the 1965 Act).
2. The Conventions have been revised periodically, the last time in 2004. The revised Conventions significantly upgrade the liability regime and are intended to ensure that, in the unlikely event of a nuclear incident, an increased total amount of compensation will be available to a wider set of victims in respect of a broader range of damage than is currently the case, and more responsibility for funding compensation will transfer to nuclear operators
3. The revisions to the Conventions are not yet in force. This will take place once the amendments have been ratified. EU Contracting Parties have agreed to ratify the Paris Convention together. Of the 15 current Contracting Parties to the Paris Convention, 13 are EU States. The earliest we expect ratification to happen is late 2011.
4. In order for the UK to be able to ratify the amendments to the Conventions we need to implement the changes in UK law. Section 76 of the Energy Act 2004 permits Government to implement the changes to the Conventions through secondary legislation. It provides that amendments may, by Order, be made to the 1965 Act and related legislation for the purpose of facilitating the ratification by the UK of any Protocol amending either of the Conventions
5. This regime is aimed at ensuring adequate and fair compensation for victims who suffer damage as a result of a nuclear incident at a nuclear installation or during the transport of nuclear substances to and from that installation. Further, recognising that the effects of a nuclear incident do not stop at national boundaries, it aims to provide uniformity in certain basic rules across its signatory countries.
6. In order to meet these aims, the Paris Convention is currently based on the following key principles:
  - The operator of a nuclear installation is exclusively liable for personal injury or property damage resulting from nuclear incidents. All claims for injury or damage are “channelled” to the operator and, with limited exception, no other party can be liable. This means victims have an easily identifiable person to bring a claim against in the event of a nuclear incident;
  - The operator is strictly liable for the injury and damage. There is no need for a victim to establish fault on the part of the operator;
  - The operator’s liability is capped in amount per incident;
  - The right to compensation expires if legal action is not brought within ten years of the nuclear incident;
  - The operator is under an obligation to maintain insurance or other financial security up to the level of its liability. The aim of this requirement is to ensure that operators always have sufficient funds to meet any claims for compensation
  - Where there is a nuclear incident in a nuclear installation in one Paris Convention country, claims for compensation can be brought against the operator in respect of injury or damage incurred in another Convention country; and

---

<sup>1</sup> Paris Contracting Parties at present are: Belgium, Denmark, Finland, France, Germany, Greece, Italy, Netherlands, Norway, Portugal, Slovenia, Spain, Sweden, Turkey and the UK.

- In general, the courts of the State where the nuclear incident has occurred deal with compensation claims (irrespective of where the damage has been incurred).
7. The Brussels Supplementary Convention provides for a system to make additional resources available from public funds to compensate victims where the amount needed to compensate victims for damage caused by a nuclear incident exceeds the operator's liability level under the Paris Convention.

### Scope of change

8. The amendments made to the Conventions in 2004 fall into three main areas: categories (heads) of damage, geographical scope and financial levels.

- Damage - the scope of the damage for which compensation can be claimed has been extended. In addition to personal injury/death and property damage, nuclear operators will now be liable for four new categories of damage. These are: (i) economic loss arising from property damage or personal injury; (ii) cost of measures of reinstatement of impaired environment; (iii) loss of income deriving from a direct economic interest in any use or enjoyment of the environment; and (iv) the cost of preventive measures.

The time limit for claims for personal injury/death has also been extended from 10 to 30 years. The limitation period for all other types of claims remains at 10 years.

- Geographical scope -The geographical scope of the Paris Convention has been extended so that, as well as requiring compensation to be made available for damage suffered in the Paris countries, it will also require compensation to be made available for damage suffered in certain non-Paris countries (in particular, those without nuclear installations and those with liability regimes that afford equivalent reciprocal benefits<sup>2</sup>).

The geographical scope of the Brussels Convention is more limited – generally extending only to damage suffered in the countries that are party to the Brussels Convention and their marine areas. This means that the additional funds made available under the Brussels scheme may not be used to provide compensation for damage suffered in Paris countries that are not party to the Brussels Convention<sup>3</sup> and the non-Paris countries mentioned above.

- Financial levels – Contracting Parties must set operator liability of at least €700 million per incident. But Convention Parties are permitted to impose a higher liability level or unlimited liability as well as a lower liability than the minimum for installations and transport of nuclear materials where, in the event of an incident, there is unlikely to be significant damage. Where a liability level is set, operators are also required to put in place insurance or other financial security to cover their liability. The aim of this requirement is to ensure that operators always have sufficient funds to meet any claims for compensation. If unlimited liability is imposed, there is still a requirement to set an insurance/financial security limit of at least €700 million. The Brussels Supplementary Convention ensures that additional resources, are available for compensation through a three tier system:

- The first tier is to be provided by the operator and corresponds to the level of liability imposed on the operator under the Paris Convention;
- The second tier is to be provided from the operator or public funds made available by the country in which the responsible operator's installation is located and is the difference between the operator's liability level under the first tier and €1200 million (so if an operator level of €700 million is imposed, the second tier amount would be €500 million; by contrast if an operator liability level of €1200 million is imposed, there will be nothing to pay under the second tier unless there is a shortfall in insurance or other financial security);
- The third tier is to be provided from public funds contributed by all the countries that are party to the Brussels Convention and is €300 million in total- i.e. the UK would only contribute a share of this.

<sup>2</sup> Damage in non-Paris countries that are party to the Vienna Convention on Civil Liability for Nuclear Damage that are also party to the Joint Protocol relating to the application of the Vienna Convention and the Paris Convention would also be covered if the UK also became a party to the Joint Protocol.

<sup>3</sup> That is: Greece, Portugal, and Turkey.

- The second and third tiers are activated when the funds in the previous tier are exhausted. Countries may choose to use additional public funds for compensation once the three tiers are exhausted – in the UK this requires Parliamentary approval.
  - It should also be noted that the scope of the damage that can be compensated under the first tier (€700 million) is broader than the scope of the damage that can be compensated under the second tier (€500 million) and third tier (€300 million).
  - It should be noted that under any option, the Conventions do not permit the State to avoid financial responsibility completely (even if operator liability is unlimited). The UK would be bound to contribute to the third tier for incidents involving installations both in the UK and in other Brussels countries. In the case of an incident involving an installation in the UK, we would be obliged to apply the public funds contributed under the third tier to meet compensation claims.
9. Table 1 below summarises the position currently and as it would be after the revised Conventions have been implemented.

**Table 1: Summary of the position pre and post 2004 Paris/Brussels Amendments**

	<b>Current as implemented in the Nuclear Installations Act 1965</b>	<b>Amended Paris/Brussels Conventions</b>
Financial levels (on operator)	<ul style="list-style-type: none"> <li>• £140m (standard site)</li> <li>• £10m (for low risk "prescribed" sites)</li> <li>• Incidents in transit £140m from standard sites; and £10m from prescribed sites</li> </ul> <p><i>(above this level the government and other Convention signatories provide additional cover, under the Brussels Convention, of up to 300m Special Drawing Rights (approximately £300m)</i></p>	<ul style="list-style-type: none"> <li>• Minimum €700m (standard site)</li> <li>• Minimum €70m (low risk installations)</li> <li>• Minimum €80m for low risk transit</li> </ul> <p><i>(above this level the government and other Convention signatories provide additional cover, under the Brussels Convention, up to €1,500m)</i></p>
Categories of damage	<ol style="list-style-type: none"> <li>1. Property damage</li> <li>2. Personal injury/death</li> </ol>	<ol style="list-style-type: none"> <li>1. Property damage</li> <li>2. Personal injury/death</li> </ol> <p><b>New</b></p> <ol style="list-style-type: none"> <li>3. Economic loss arising from property damage or personal injury</li> <li>4. Cost of measures of reinstatement of impaired environment</li> <li>5. Loss of income deriving from a direct economic interest in any use or enjoyment of the environment</li> <li>6. Cost of preventive measures</li> </ol>
Time limits	<ul style="list-style-type: none"> <li>• Operator limitation period for property damage and personal injury claims is 10 years. But Government has discretion to cover claims made between 10 and 30 years after an event</li> </ul>	<ul style="list-style-type: none"> <li>• Operator limitation period for personal injury/loss of life increased to up to 30 years.</li> <li>• Operator limitation period for all other types of claims remains at 10 years</li> </ul>
Geographical scope	<ul style="list-style-type: none"> <li>• Does not cover injury or damage in any countries that are not a party to the Convention</li> </ul>	<ul style="list-style-type: none"> <li>• UK</li> <li>• Other Paris/Brussels signatory states</li> <li>• Non-nuclear states e.g. Austria,</li> </ul>

	Current as implemented in the Nuclear Installations Act 1965	Amended Paris/Brussels Conventions
		<p>Ireland, and Luxembourg that are not a party to the Convention</p> <ul style="list-style-type: none"> <li>• Vienna Convention countries who have ratified the Joint Protocol (if the UK has ratified the Joint Protocol)</li> <li>• Any other country not party to the Convention but that has reciprocal arrangements</li> </ul>

## Who will be affected

- All nuclear operators i.e. those who have nuclear site licenses as provided for in the 1965 Act.
- Nuclear site licensees can be sub-categorised in terms of:
  - Standard sites i.e. such as power stations, which are subject to the full liability level. In the UK the current level of liability for these sites is £140m per incident; and
  - Low risk sites - the criteria for which are set out in the Nuclear Installations (Prescribed Sites) Regulations 1983 (the Prescribed Sites regulations) - which in the UK have a current liability level of £10m.
- In addition, the liability regime also applies to the transport of nuclear materials by these operators.
- Operators hold 38 nuclear site licenses under the 1965 Act of which 31 are civil sites and 7 are military sites. A summary of current operators is at Annex 2.

**Table 2: Distribution of civil nuclear site licenses**

Civil nuclear operators	Number of licensed sites
Nuclear Decommissioning Agency	18
Others	13
Of which: 'low risk' sites	2

## DESCRIPTION OF OPTIONS

### Non-implementation/non regulatory approaches

- The possibility of not implementing the revised Conventions into UK law was considered. However, this was ruled out as a plausible option because the UK needs to meet its international Treaty obligations. A non-regulatory approach was also ruled out because the changes need to be made in UK law to allow potential claimants a legal basis on which to make claims

### Implementing Options

- The key change that will impact on nuclear operators is in relation to the liability level. The Conventions and the 1965 Act (under section 19) require operators to put in place insurance or other financial security to cover their liability. The aim of this requirement is to ensure that operators always have sufficient funds to meet any claims for compensation. If unlimited liability is imposed, there is still a requirement to set an insurance/financial security limit of at least €700 million.
- This impact assessment therefore considers the most appropriate level of liability to set for standard site operators, prescribed site operators and for the transport of nuclear materials.

17. We understand that most Paris Contracting Parties are adopting a range of liability levels – most are proposing to set the operator liability at the minimum €700m, others at €1200m and some opting for uncapped with a limit on the level of financial security. Our current understanding is that Sweden and Finland are proposing uncapped liability (but with a limit on the level of financial security). Germany has a long standing system of uncapped liabilities within the context of a retrospective pooling arrangement. Switzerland also has uncapped liability with a financial security level of approximately €600m which is expected to rise to €1 billion. Spain has also proposed operator liability of €1200m.
18. There may be a number of factors as to why each country sets the operator liability at the level it does. One probable reason may be the availability of insurance capacity in its market. There may be other wider policy reasons involved in the choice of liability level – the key point however is that a country which chooses to set the level at the minimum €700m accepts that compensation above this level will be met through public funds.
19. The main options are to set the operator liability level and the insurance/financial security limit as follows:
- at €700 million per incident (the minimum required under the Conventions);
  - at €700m per incident at the start of the regime and with a review after 5 years
  - at €1200 million per incident (i.e. the first and second Brussels tiers, effectively transferring €500m which would otherwise fall to be paid from the public purse), but introduce this progressively by imposing a level of €700 million at the start and raising the level by €100 million each year to €1200 million.
  - Set an uncapped liability on operators

**Table 3: standard sites operator liability options (preferred option in bold)**

	<b><i>Operator liability</i></b>
Option 1	Set at €700m
Option 2	Set at €700m and then review in 5 years
<b>Option 3</b>	<b>Progressive increase in liability from €700m to €1200m</b>
Option 4	Set uncapped operator level and a specified level of insurance or other financial security

20. The arguments for each are discussed below. Our preferred option is to introduce an operator liability level of €1200m, but to do so progressively starting at €700m.

### **Lower risk installations and transport**

21. Under the revised Conventions we can set lower levels of liability for low risk installations or transport where we consider them to be capable of causing only a limited amount of damage. The operator is then only required to put in place insurance or other financial security for that lesser amount. The aim of setting a lower liability is to ensure that the liability and insurance/financial security requirements are proportionate to the level of risk that these special cases present. The establishment of such lower amounts, however, is subject to the condition that the reduced amount must not be less than €70 million in the case of a nuclear installation (prescribed site) and €80 million in the case of carriage of nuclear substances.
22. Setting lower liability does not mean the amount of money available for compensation up to €1500 million is reduced, it simply means a transfer of liability from the operator to the Government above the €70 million or €80 million level.
23. The options available to us are as follows:
- a. For prescribed sites to set the operator liability level and the insurance/ financial security limit at:
    - The same level as for standard sites, or

- The lower level of €70 million per incident
- b. For the transport of nuclear material to set the operator liability level and the insurance/financial security limit:
- at the same level as for standard sites
  - set the lower level of €80 million for low risk transport (judged on the basis of existing transport legislation)

**Table 4: Options for operator liability for prescribed sites and transport (preferred option in bold)**

Prescribed sites	Transport
Liability at same level as standard sites	Liability at same level as standard sites
<b>Lower liability than standard site</b>	<b>Liability level to be set according to risk (judged on the basis of existing transport legislation, if practicable)</b>

### Standard sites

**Table 5: Operator liability for standard installations - summary of options**

Option	Advantages	Disadvantages
1. liability set at €700m (Operators required to have that level of insurance/financial security)	<ul style="list-style-type: none"> <li>• Complies fully with the Convention requirement to set operator liability level to at least €700m;</li> <li>• Would be in line with the majority of Contracting Parties are proposing to set this liability level.</li> <li>• There is certainty of capacity in the insurance market to meet claims at this level</li> <li>• The UK has an excellent safety record. €700m is significantly higher than underlying claim history</li> </ul>	<ul style="list-style-type: none"> <li>• The amount may be insufficient if incident severe and damages exceed this amount</li> <li>• The 2nd tier of €500m, of the Brussels Convention, would remain to be paid through public funds in the event of a large scale incident</li> </ul>
2. Set liability at €700m and then review after 5 years	<ul style="list-style-type: none"> <li>• As option 1 above</li> <li>• Formalises review process</li> </ul>	<ul style="list-style-type: none"> <li>• As option 1 above</li> </ul>
3. Set liability at €1200m and introduce it progressively starting from €700 million and rising by €100 million each year (Operators required to have that level of insurance/financial security.) Brussels tiering system employed for claims over €700m	<ul style="list-style-type: none"> <li>• Transfer of responsibility for 2nd tier compensation, which would otherwise fall on the taxpayer, to the operator</li> <li>• Ensures that operator takes on fullest amount of liability within the framework of the Conventions</li> <li>• Allows insurance market to build capacity if necessary</li> </ul>	<ul style="list-style-type: none"> <li>• Insurance costs for covering €1200m are likely to be higher than for €700m, thereby potentially putting UK operators at a disadvantage compared to operators in States that are proposing to set operator liability at €700m</li> <li>• The level may be insufficient if level of damage exceeds this amount</li> </ul>
4. Set an uncapped liability with requirement to have	<ul style="list-style-type: none"> <li>• Operators liable for full costs nuclear accidents</li> </ul>	<ul style="list-style-type: none"> <li>• Uncapped liability does not mean Government avoids all liability;</li> </ul>



Option	Advantages	Disadvantages
specified amount of insurance/financial security.		<ul style="list-style-type: none"> <li>• Insurance not available for uncapped level</li> <li>• Uncapped liability does not necessarily guarantee unlimited pay-out (i.e. the company may become insolvent before all costs are paid);</li> <li>• Runs counter to the Paris regime in that operators continue to accept the principles of channelling, strict liability and requirement to have insurance.</li> <li>• Uncapped liability disproportionate to the very unlikely risk of a catastrophic accident.</li> </ul>

24. The changes to the Paris Convention require us to impose a minimum liability level of €700 million on operators. But we are permitted to impose a larger liability level or unlimited liability. Where a liability level is set, operators must also be required to put in place insurance or other financial security up to that level.

*Option 1: Set operator liability at €700m*

25. Under this option we would set the operator liability at €700m - the minimum required under the Convention.
26. The key benefit of doing so would be that most of the other Paris Convention countries (as described in paragraph 17) are setting it at that level. Since the Conventions are about trans-boundary impacts, having a liability level consistently applied across Europe is beneficial. It provides a level playing field in respect of cross border claims, as well as relative consistency of costs for operators who may have sites in more than one country. That said, a number of countries are now proposing to go beyond this level.
27. Another reason why Convention countries may have decided to set operator liability at the minimum level, may be down to the fact that there has never been a nuclear third party liability claim which has exceeded the liability levels set under even the current Paris regime. Over the last 50 years there have only ever been four court claims under the regime, of which the largest award was approximately £10m. Increasing the liability level (and accompanying insurance requirement) to €700 million therefore is a significant increase in operator liability and provides more than enough funds for any claims that one could reasonably expect to be made.
28. Setting operator liability at €700m could therefore be argued as striking the right balance between ensuring there is adequate cover for the vast majority of claims and significant enough (coupled with the safety regime) to ensure that the operator does not take his safety responsibilities lightly. Setting the liability to a level higher than this does not in itself increase the safety levels.
29. There may be a number of relevant reasons why countries have opted to set operator liability at the minimum level of €700m. They could include, the lack of capacity in their insurance industry to cover more; the cost of insurance coverage at a higher amount; or the number and nature of the installations that are in their country. What needs to be recognised however is that within the framework of the Conventions total liability for an incident is €1500m, of which the first €1200 million (i.e. the first and second tiers combined) can be made to fall to the operator to pay. The countries which have chosen to set the operator only at the minimum €700 million have therefore decided that the contingent liability between €700 million and €1200 million should rest with their tax-payers.
30. If the UK adopted the same approach then it would mean that the Government would be obliged to contribute €500 million, through public funds under the Brussels Convention second tier, in the event

of a large scale incident where the compensation claims exceeded the amount of the operator's liability. We consider that public funds should not be used to meet the costs of compensation within the initial two tiers of the Paris and Brussels regime where the market is able to absorb this additional liability. We believe that it is right and proper for operators to be liable for both the first and second tiers of the regime where it is possible to do so. We therefore reject this option.

*Option 2 : Set operator liability at €700m and then review in 5 years.*

31. This option is the same as Option 1 above but we would propose to review the liability level after 5 years and increase it if necessary. We consider that the option to review on a regular basis is a good one and propose to adopt it for all our options, including our preferred option, Option 3.
32. There will be a number of factors that could determine whether the level should be increased – this could include, for example, the level of operator liability in other Paris States, the available capacity in the insurance market and any claims history developed over the period.

*Option 3: Set operator liability at €1200m (which would be phased in)*

33. Under this option operator liability would be set at €1200 million, which would be phased in over five years. The €1200 million liability level would be introduced progressively such that at the start of the new regime standard site operators will be liable for €700 million. We will then annually increase the levels by €100 million until liability of €1200 million is reached. The level of insurance cover or other financial security will need to match the liability increases.
34. We recognise that industry may argue that this sets an unlevel playing field with operators in other countries where liability is set at the minimum €700 million. The largest burden from the increased liability will be around insurance costs. Insurance costs to cover €1200 million are likely to be higher than to cover €700 million. However, we think that the additional liability on operators is justified. The main benefit of this option is in the fact that the contingent liability, which would otherwise fall to the taxpayer, is transferred to the operator. It means that the operator takes on the maximum liability it can within the framework of the Conventions.
35. By proposing to phase in the level we ensure that the insurance market has time to build up sufficient capacity in all the categories of damage. We also believe that this is a fair and pragmatic way of introducing a liability level which is much higher than the minimum of €700 million required by the Conventions. Option 3 is therefore the preferred option.

*Option 4: Set uncapped liability on operators*

36. Under this option we would set uncapped liabilities on operators. The merit in doing this would be to ensure that operator takes on the fullest liability it can after a nuclear incident. However we do not believe that this is a workable solution for a number of reasons. Notably:
  - a. *Uncapped liabilities do not guarantee pay out:* imposing an uncapped liability does not guarantee that the operator will be able to pay the full costs of damage. In fact if the damage is sufficiently severe, the operator may become insolvent and Government would be forced to step in. The liability regime is not intended to impose the highest burdens on business but to ensure that if, in the very unlikely event, there is a nuclear accident, victims are able to obtain compensation.
  - b. *Uncapped liability does not permit Government to avoid all liability.* Government would be bound to contribute to the third tier under the Brussels Conventions for incidents both in the UK and in other Brussels contracting states. In addition, the Conventions require Governments to step in if insurance or other financial security is unavailable or insufficient;
  - c. *It would deter operators from entering the UK.* Operators exploring investment opportunities may consider the UK a less attractive place to do business compared to the other Paris countries which do not set uncapped liability;
  - d. *Running counter to the Paris package* - limiting liability under the Paris Convention might be regarded as part of a workable package that seeks to achieve a practical solution for ensuring the availability of compensation in the event of a nuclear incident while balancing the interests of operators, victims and the taxpayer. Although operators benefit from limited liability, they are required to accept other more onerous obligations regarding the provision of compensation than they would have under the ordinary law. It could be argued that imposing unlimited liability upsets the fair balance the package seeks to achieve to the detriment of operators.

37. In the event of a nuclear accident, several different persons (including manufacturers and other suppliers) could be responsible for causing the damage. In all likelihood, under ordinary tort law, victims would have great difficulty establishing which of those persons was legally liable for particular damage. The Paris Convention seeks to address this by “channelling” liability exclusively to operators who are deemed to be liable for the damage irrespective of whether or not they are in fact at fault. This means victims have a readily identifiable person against whom claims can be brought without the need to establish fault. In addition, an award of compensation against an operator is only as good as his ability to pay. In the event of an incident, there are likely to be numerous competing claims on an operator’s resources and it could be that by the time any litigation is complete or settlement negotiated, there are insufficient funds to pay compensation to victims. The Paris Convention seeks to address this issue by requiring operators to put in place insurance or other financial security specifically to cover their third party liabilities.
38. Further, there is a question whether seeking to transfer the entire risk of catastrophic accidents (which would give rise to very high costs but have a very low risk of occurring) to operators and insurers would be effective or provide a real incentive toward ensuring safety. It is very unlikely that there would be sufficient capacity in the insurance market to cover this level of liability and there is a real risk that operators would not be able to meet all of the costs from their own funds. In the circumstances, the state would be the only entity capable of providing cover at such a high level. But as the likelihood of such a catastrophic accident is very small, any charge for taking this risk calculated on a probability basis would not be material. The most effective way of guarding against catastrophic accidents is to have a robust regulatory regime to ensure the risk of a significant release of radioactive material is kept vanishingly small. In effect, the nuclear industry is already paying to protect society from a very low probability but high consequence accident through meeting the exacting requirements of the regulatory authorities.
39. We therefore reject this option.

### **Prescribed sites**

**Table 6: Operator liability for prescribed sites - summary of options**

Option	Advantages	Disadvantages
Liability set at the same level as standard sites i.e. €1200m	<ul style="list-style-type: none"> <li>• Significantly higher than the minimum necessary (€70m) under the Conventions</li> <li>• Potentially administratively simpler to implement</li> <li>• In event of large scale accident operator is liable for full costs of compensation</li> <li>• Transfers to the operators responsibility for claims exceeding €70m up to €1200m which would otherwise fall on the taxpayer</li> </ul>	<ul style="list-style-type: none"> <li>• Disproportionate level of liability relative to the level of damage likely to be caused by an incident at these sites;</li> <li>• The cost of insurance may be prohibitively expensive for these particular sites</li> </ul>
<b>Liability set at €70m</b> (Operators required to have that level of insurance/financial security ( <b>preferred option</b> ))	<ul style="list-style-type: none"> <li>• Fully complies with the minimum level of liability required for this type of installation under the revised Conventions;</li> <li>• Continues existing UK principle of setting a lower liability level for such sites</li> <li>• Proportionate, targeted and reflects the low risk of significant damage caused</li> </ul>	<ul style="list-style-type: none"> <li>• Insufficient if damage exceeds operator liability level and costs would fall on taxpayer</li> </ul>

Option	Advantages	Disadvantages
	<ul style="list-style-type: none"> <li>by such installations</li> <li>• Other Contracting parties apply similar discretion</li> <li>• The UK has an excellent safety record. €70m is higher than underlying claims history.</li> </ul>	

40. The UK currently sets a lower liability level of £10 million for installations which are prescribed under legislation and are considered to pose a low risk of causing significant damage. Essentially the Prescribed Sites Regulations cover small licensed installations that fall within certain limits relating to activity of radionuclides, reactor size and mass of fissile material. In practice there are currently two civil nuclear sites that fall under this category – namely the Studsvik facility and the Imperial College Consort reactor (a closed site).
41. Applying a higher operator liability level could put a halt to valuable activities such as research because of the significant increase in the cost of insurance cover. Even at the new level of €70m this represents a very significant increase from the current £10m.

## Transport

**Table 7: Operator liability for transport of nuclear material - summary of options**

Option	Advantages	Disadvantages
Liability set at the same level as standard sites for all types of transport	<ul style="list-style-type: none"> <li>• Significantly higher than the minimum necessary (€80m) under the Conventions</li> <li>• Administratively simpler to implement</li> <li>• In the event of large scale accident operator is liable for full costs of compensation</li> <li>• Transfers to the operators responsibility for claims exceeding €80m up to €1200m which would otherwise fall on the taxpayer</li> </ul>	<ul style="list-style-type: none"> <li>• Disproportionate level of liability relative to the level of risk these sites actually present;</li> <li>• The cost of insurance may be prohibitively expensive for these particular sites</li> <li>• Does not in itself increase safety of transport activities</li> </ul>
<b>Liability levels set according to risk (if practical)</b>	<ul style="list-style-type: none"> <li>• Recognises differences on material being transported</li> <li>• Proportionate and targeted</li> <li>• Uses existing transport legislation as basis</li> </ul>	<ul style="list-style-type: none"> <li>• Damage may exceed liability level and costs would fall on the taxpayer</li> </ul>

42. The current Paris Convention does not set a lower liability level specifically for low risk transport. At present, therefore, the UK sets the same liability level for the transport of nuclear material as it does for the liable operator's site (i.e. £140 million, or £10 million in the case of the operator of a prescribed site). We believe that this does not appropriately target the potential consequences of the damage that the cargo could cause. Whilst it is true that the nuclear material being transported from a prescribed site is of a nature which is unlikely to cause a large scale impact in an accident; it is not the case that all nuclear material from standard sites is of high activity and likely to cause significant damage. Indeed our understanding is that a very small proportion of the transport of

radioactive material relates to transport from nuclear installation (and hence would be covered by this regime) and of which about 50%<sup>4</sup> is deemed to be of a low impact type.

43. We think that the liability level should relate to the likely scale of damage an incident would cause. Where there is a risk of significant damage in the event of an incident, the standard level of €1200 million should apply; where there is no such risk, the lower liability level of €80 million should apply. Government proposes to apply the discretion provided in the revised Paris Convention to set a lower liability (of €80 million) for transport of certain nuclear material which is unlikely to cause large scale third party damage in the event of an incident. Carriage not deemed to be lower risk will have a liability limit of €1200 million (phased-in as for standard sites).
44. The aim of this option is to avoid imposing the disproportionate burden on nuclear operators of unjustified insurance or financial security costs. The establishment of such lower liability levels would not mean that the funds available for compensation would be limited to these amounts. If, in the event of an incident, claims for compensation in fact exceed the reduced amounts, then under the Paris and Brussels Conventions the shortfall up to €1200 million would need to be made available from public funds<sup>5</sup>.

## COSTS AND BENEFITS

### Benefits

45. The option descriptions set out the advantages and disadvantages for each option. This section looks in more detail at how these translate into costs and benefits.

#### *Industry compliance costs*

46. The revisions to the Paris Convention should not introduce new categories of cost on the operator, but the cost it currently bears will rise. The revised Conventions will continue to apply the long standing principles of channelling, limited liability, and the requirement on the operator to maintain insurance or financial security to cover any claims.
47. The significant changes to the Conventions are in relation to making available an increased total amount of compensation to a larger number of victims in respect of a broader range of damage than is currently the case. We therefore think that the main compliance costs to industry will continue to be:
- (a) cost of any legal advice to help comply with the regulations (i.e. not legal defence);
  - (b) cost of insurance or other types of financial security; and
  - (c) administrative costs, such as internal advice to staff on the new regime.
48. We do not anticipate a significant increase in on-going legal advice or administrative costs as a consequence of the changes, although we recognise there will be an initial increase to costs in getting ready to comply with the new regulations, for example, in familiarisation with the requirements of the amended legislation.
49. The cost which will be of on-going significance is the cost of insurance or other types of financial security. We expect that the increase in liability level alone from £140m (currently) to €1200m is likely to significantly increase premiums. On top of which the widening of scope to bring damage related to the environment and costs of preventative measures into the regime will further add to the costs of insurance premium.
50. Currently operators in the UK purchase most of their insurance through Nuclear Risk Insurers Ltd (NRI), an intermediary body comprising Lloyd's syndicates and the general insurance market, who pool their insurance capacity for nuclear risks. Operators also make use of alternative financial security arrangements and other providers. For the purposes of this impact assessment we obtained the view of NRI as to what it would be able to cover. It will be able to provide cover up to

---

<sup>4</sup> Survey into the Radiological Impact of the Normal Transport of Radioactive Material in the UK by Road and Rail: Health Protection Agency (NRPB-W66) <http://www.hpa.org.uk/Publications/Radiation/NPRBArchive/NRPBWSeriesReports/2005nrpbw066/>

<sup>5</sup> A further €300m would be made available under the third tier from contributions from Brussels signatories.

the new financial level for any confirmed sudden and accidental release of radiation but will have to exclude certain elements of the new liabilities from its policies.

51. Estimating the cost of insurance at this stage is not possible because:
  - a. Pricing of insurance premium is commercially confidential and neither the insurer or the operators are prepared to share their estimates of cost
  - b. The new types of liability do not have a claims history and will be priced once insurers are able to assess the revised legislation;
  - c. Each installation is different and the insurance premium will vary from one site to another;
  - d. Even if the insurers are prepared to share its estimate of premium, the fact is that they may not be able to provide full cover for the new liabilities. The price of insuring the “gaps” in cover would not be known at this stage;
  - e. The insurance market is dynamic and we would not want to, in estimating a figure now, potentially lead the market.
52. Even if we were able to estimate the cost it would not be desirable to do so. It would not only be significantly different to the actual costs faced by operators when the legislation comes into force but could have a distorting impact on the market.
53. However, as stated above, the liability level will increase significantly from €140 million to between €700 million and €1200 million. This is up to an eightfold increase in amount but we do not expect insurance premiums or alternative financial security costs to rise by as much.
54. For similar reasons as with standard sites it is not possible to quantify additional costs at this stage for the new requirements for prescribed sites or for nuclear transport.

#### **Consultation Questions:**

- 1) Can you provide information on current actual costs of insurance or other financial security and the impact of the proposed changes?**
- 2) If you cannot provide actual costs, are you able to provide information on the scale of change for the costs of insurance or other financial security through higher insurance premiums or alternatives?**
- 3) Are these estimates for a standard installation or a low risk installation or for transport activities?**
- 4) Can you provide information on ongoing legal and administrative costs as a result of the changes and the likely scale and nature of transition costs?**

#### **Government costs**

55. As with the operators, the categories of costs on Government will remain unchanged. These will be the cost of reviewing and approving operators’ financial security or insurance arrangements as required under section 19 of the Nuclear Installations Act 1965.
56. The only new cost we anticipate at this stage is a one off cost to change the civil procedure rules to allow foreign States to bring representative action claims in the UK. The Ministry of Justice advice is that these costs can be absorbed into the routine updating of civil procedure rules.
57. We expect there to be an initial increase in costs to Government of carrying out its duty under section 19 of the 1965 Act to approve insurance or financial security arrangements.

#### **Costs to the Public**

58. We do not anticipate any direct costs to the public in compliance with the new regulations.

#### **RISKS AND ASSUMPTIONS**

59. The main assumptions are:

- i. The insurance and financial market is able to take on the level of risk and provide cover, and will cover more risk over time.
  - ii. The impact assessment is based on the current number of 31 civil nuclear sites and does not include military purpose sites.
  - iii. The number of low risk prescribed sites is likely to remain small.
  - iv. The discount rate for costs/benefits is the standard Government rate of 3.5%.
  - v. The time period of the assessment of costs and benefits is assumed as 30 years (the time period for personal injury/liability claims from the time of any single incident).
60. The main risk is that the insurance market is unable to provide cover for the increased liabilities. As a result Government may need to look at intervening for example by providing reinsurance for a charge which reflects the risks being taken on.

## **WIDER IMPACTS**

### **Competition Assessment**

61. The Conventions impose on nuclear operators a requirement to have financial security to cover their liabilities. Non-nuclear companies that operate in the same markets as nuclear companies are not bound by the same requirement, but generally have uncapped liabilities and are likely in practice to have in place some insurance or other financial security to cover their third party liabilities.
62. The only market where such an effect is likely to be significant is that for electricity generation. To the extent that the requirements of the amended Paris and Brussels Convention represent either a reduced or an additional cost to nuclear electricity generators compared with other forms of electricity generation, this would have an impact on the competitive position of nuclear power compared with non-nuclear operators. However, given the constraints and assumptions set out above, it is not possible to calculate this impact. The limited academic literature in this area reports similar difficulties.
63. An operator level of liability in excess of €700m might also have an impact on the competitive position of UK based nuclear operators. To the extent that nuclear generated electricity is traded across the EU then any differential between the financial guarantee UK operators are required to provide compared with the amount required elsewhere in Europe, will impact on the relative competitiveness of UK based facilities. This impact is likely to be much less significant for the UK (which had net imports of 1% in 2009 - DUKES) than in other EU countries where electricity is more highly traded across borders. Again, we are unable to calculate the value of this effect as it is not at this stage possible to estimate the cost of insurance, but we would expect it to be marginal compared with the operating costs of nuclear power stations.

### **Small Firms' Impact Test**

64. There are no nuclear operators that are also small firms. Small firms will not therefore be affected by these arrangements. The amendments to the Conventions will not have a high or disproportionate impact on small firms.

### **Statutory equality duties**

65. Implementation of the amended Paris and Brussels Conventions will not have an impact on statutory equality duties.

### **Justice**

66. Discussion with the Ministry of Justice (MoJ) has established that the changes to court rules as a result of implementing the amended Conventions will not carry significant additional costs, providing the coming in force of the Order fits in with the usual timetable for amending Civil Procedure Rules twice a year. The MoJ has agreed to submit amendments to the Civil Procedure Rule Committee to enable proposed changes to operate in England and Wales. Similar agreements will be obtained with the MoJ equivalents in Scotland and Northern Ireland

### **Sustainable Development Impact Test**

67. The UK Government's policy is that nuclear, as an affordable, dependable and safe form of energy, should be part of the UK's future low-carbon energy mix and that companies should have the option of building new nuclear power stations. Implementing the amended Paris and Brussels Conventions provides certainty to the nuclear power industry and so contributes to the UK Government's objective of ensuring sustainable development.

#### **Other specific impact tests**

68. The following specific impact tests are not relevant to these changes and so have not been undertaken:

- Greenhouse gas assessment
- Wider environmental issues
- Health and well-being Impact Assessment
- Human Rights
- Rural Proofing.

#### **SUMMARY AND IMPLEMENTATION PLAN**

69. Implementing the amendments to Paris/Brussels through the 1965 Act ensures the benefits of increased compensation levels and wider scope will be available to victims in the event of nuclear incident. The preferred option is to set a liability level of €1200m for standard nuclear sites and a lower liability level for prescribed sites of €70m and for low risk transport of €80m.

70. Implementation will be through amendments to the Nuclear Installations Act 1965, by means of an affirmative Order. The aim is to introduce the legislation into Parliament in the first half of 2011. However, the coming into force of the change, and hence costs to operators will be dependent on the final ratification of the Paris and Brussels Conventions and is unlikely to be before 1 January 2012.



## 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. If the policy is subject to a sunset clause, the review should be carried out sufficiently early that any renewal or amendment to legislation can be enacted before the expiry date. 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), i.e. a sunset clause or a duty to review, or there could be a political commitment to review (PIR)];</p> <p>The review will be to check that the revised Convention is working as expected, including the availability of financial security required for operators.</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>The review will be to check that the revised Convention is working as expected, including the availability of financial security required for operators.</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>The review approach will be determined by the Contracting Parties.</p>
<p><b>Baseline:</b> [The current (baseline) position against which the change introduced by the legislation can be measured]</p> <p>The effect of the changes will be based on the current liabilities' scope and level.</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>To be determined by Contracting Parties.</p>
<p><b>Monitoring information arrangements:</b> [Provide further details of the planned/existing arrangements in place that will allow a systematic collection of monitoring information for future policy review]</p>
<p><b>Reasons for not planning a review:</b> [If there is no plan to do a PIR please provide reasons here]</p> <p>To be determined by Contracting Parties.</p>

## Annex 2: Summary of operators holding nuclear site licenses

The list below summarises the information held on the public register of firms holding nuclear site licenses: <http://www.hse.gov.uk/nuclear/licensees/pubregister.pdf>

It covers both civil and military use sites.

<b>Operator</b>	<b>Number of sites</b>
AWE plc	2
BAE Systems Ltd	1
British Energy Generation Ltd	7
Devonport Royal Dockyard	1
Dounreay Site Restoration Ltd*	1
GE Healthcare Ltd	3
Imperial College of Science and Technology	1
Low Level Waste Repository Ltd*	1
Magnox North Ltd*	5
Magnox South Ltd*	5
Research Sites Restoration Ltd*	2
Rolls Royce Marine Power Operations Ltd	2
Rosyth Royal Dockyard Ltd	1
Sellafield Ltd*	3
Springfield Fuels Ltd*	1
Studsvik UK Ltd	1
URENCO UK Ltd	1

\*Owned by the Nuclear Decommissioning Authority but managed by separate site licensees.