

Environmental evidence base: Landscape



Air quality
Biodiversity
Geodiversity
Landscape
Land use
Soils
Water

April 2013



Overview

- Introduction:
 - A systematic review has been undertaken to characterise the impacts of the GB regulated energy system (primarily transmission and distribution) on the natural environment
 - There are seven issues that are seen to be important to address: Air quality, Biodiversity, Geodiversity, Landscape, Land use, Soils, and Water.
- Purpose of the evidence bases:
 - The intended use of the evidence bases is: to inform development of regulatory policy proposals, support internal/external
 advocacy, and support internal implementation of Ofgem's strategic and sustainability assessment framework
 - This evidence base describes: the current state of landscape in GB, wider pressures on landscape in GB, and potential
 impacts from any pressure on landscape, factors leading to such impacts and relevant statutory legislation/regulation
 - The evidence base provides an initial ranking of the impacts and also gives more detailed consideration to those individual elements of the GB regulated energy system likely to have greatest impact on landscape and/or to arise most frequently
 - The evidence base identifies: how the significance of impacts may be affected by climate change, existing statutory
 legislation/regulation intended to prevent or minimise impacts, and management actions that prevent or minimise impacts
 and can be undertaken by a range of actors
- How to use:
 - 1. The environmental evidence bases should be used to identify the impacts associated with the policy/project using the matrix, 'flag' those that are high impact with high/medium confidence and those that are medium impact with high confidence requiring scrutiny / additional analysis.
 - 2. Undertake more detailed consideration of the significance of these impacts
 - 3. Undertake more detailed analysis of the interactions with climate change
 - 4. Consider potential prevention and mitigation measures
 - 5. Undertake additional qualitative and quantitative analysis, as required
- Case study:
 - A worked step-by-step case study has been included, considering the pressure on landscape with the most significant impacts, in order to help you use this evidence base



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The state of landscape

- "Landscape is an area, as perceived by people, whose character is the result of the action and interaction of natural and/or human factors." (Council of Europe, 2000).
- Landscape :
 - Draws on all the senses
 - Contributes a sense of identity, well-being, enjoyment and inspiration
 - Is valued for its aesthetic qualities, wildlife habitats, cultural heritage and economic value in attracting business and tourism
- Britain's landscapes are extraordinarily diverse; each with their own distinct character, defined as "a distinct, recognisable and consistent pattern of elements in the landscape that makes one landscape different from another, rather than better or worse" (Swanwick, 2002)
- Our landscapes are: urban, peri-urban and rural; upland and lowland; inland and coastal
- Over the last century, landscape character has been rapidly eroded, as a result of agricultural intensification and urbanisation leading to widespread loss of:
 - Wildlife habitats, such as ancient woodland
 - Unimproved grassland, ponds and hedges
 - Archaeological and historic features
 - Remoteness and tranquillity.

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The state of landscape

- The scale, scope and speed of change have increased with modern technology. In addition to energy generation and infrastructure, key drivers of change that will continue to shape our landscapes include:
 - Agriculture and forestry
 - Water and coastal management
 - New residential and commercial developments
 - Mineral extraction
 - Other infrastructure (e.g. Roads and railways).
- These will be compounded by climate change, which will not only have a direct impact on landscapes but also will lead to changes in socio-economic drivers, working practices, cultural values, policies and use of land and other resources.

Analysis

Annex

Potential impacts on landscape

- The following slides:
 - Identify and broadly categorise potential impacts arising from any pressure on landscape
 - Identify factors that lead to such impacts
 - Highlight relevant statutory legislation or regulation intended to prevent or minimise such impacts
- This information is then used specifically to consider impacts on landscape arising from individual elements of the GB regulated energy system.

For more information on roles and responsibilities of regulators for landscape, please refer to Annex 1.

For more information on relevant legislation, please refer to Annex 2

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Making a positive difference for energy consumers Potential impacts on landscape

Impact	Factor	Relevant legislation
Visual harm and landscape character	 Factors that: Cause unacceptable visual harm Introduce or remove incongruous features that contribute to or detract from landscape character and/or quality Lead to disturbance, loss, or reinforcement of landscape elements that contribute to local distinctiveness Improve or detract from the visual condition of landscape elements 	 European landscape convention Environmental impact assessment directive Strategic environmental assessment directive Natural England National planning framework Planning policy Wales

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Potential impacts on landscape

Impact	Factor	Relevant legislation
Historic	Factors that damage or help	Scottish planning policy
elements	conserve historic elements that contribute significantly to landscape	
	character and quality, such as field, settlement or road patterns	
Characteristic	Loss, disturbance or conservation of	Habitats directive
semi-natural	semi-natural vegetation that is	Scottish heritage
vegetation	characteristic of the landscape type	
Tranquillity	Factors that increase or help	National parks and access to the
	maintain background 'low levels' of	countryside act 1949
	built development, traffic, noise	National planning policy framework
	and/or artificial lighting.	National parks (Scotland) act 2000

Instructions

- Case Study:
 - The steps are illustrated using a 'real-life' case study.
 - This considers the pressures: new gas transmission lines, shale gas connection to the grid and CO₂ pipelines, electricity transmission lines overhead, and electricity storage – hydro
 - Steps 2 to 5 have been applied to this case study.
 For general use, you will need to tailor these steps to your own policy/project
- Step 1: Initial rankings of impacts
 - This step applies to all policies/projects
 - The matrices illustrate the severity of each pressure on the various impacts and so can be used to highlight areas for additional scrutiny
- Step 2: Significance of rankings
 - In this step you develop a matrix specific to your given policy/project
 - This allows you to consider the significance of the identified impacts

- Step 3: Interactions with climate change
 - Another case-specific matrix is developed here analysing the interactions with climate change
- Step 4: Preventing or minimising the impacts
 - A final case-specific matrix is developed in order to consider potential prevention and mitigation measures
- Step 5: Qualitative/quantitative analysis
 - Within your policy/project development, you should undertake further analysis of the relevant impacts and mitigation measures

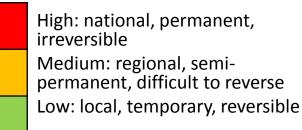
Analysis

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Step 1: Initial ranking of impacts on land use

- Having identified and broadly categorised potential impacts arising from any pressure on landscape, the following tables provide an expert initial ranking of each of the individual elements of the GB regulated energy system:
 - Independent of other energy system-environment interactions
 - At the likely scale of an individual pressure (e.g. an individual transmission line or sub-station)
 - Irrespective of existing statutory legislation and regulation, and
 - Irrespective of potential timing
- Cumulative effects are considered in the same way in relation to each individual element of the GB regulated energy system
- The matrices should be used to 'flag up' significant impacts. This will allow you to conduct further investigation on those significant impacts, for which we have a high degree of confidence in the evidence available

• Impact is defined as:



- Confidence in evidence of such impacts is defined as:
 - HHigh: robust evidence, high
agreementMMedium: medium evidence,
medium agreementLLow: limited evidence, low
agreement

Initial ranking of impacts on landscape (electricity transmission)

Driver: Electricity transmission	Impact				
Issue: Landscape Pressures	Visual harm and landscape character	Historic elements	Characteristic semi-natural vegetation	Tranquillity	Cumulative effects
New transmission lines – overhead*	Н	Н	Н	N/A	Н
New transmission lines – underground	М	Н	Н	N/A	М
New distribution lines	Н	Н	Н	N/A	Н
New/extended substations	Н	Н	Н	Н	М
New marine interconnection	N/A	N/A	N/A	N/A	N/A
Marine interconnection – land base connection	N/A	N/A	N/A	N/A	N/A
Marine sub-sea lines	N/A	N/A	N/A	N/A	N/A
Marine sub-stations	N/A	N/A	N/A	N/A	N/A
Series compensation installations	N/A	N/A	N/A	N/A	N/A
Electricity storage – hydro*	М	М	М	N/A	М
Electricity storage – compressed air	L	L	L	N/A	L
Electricity storage – batteries	L	L	L	N/A	L
Electricity storage – cryogenic systems	N/A	N/A	N/A	N/A	N/A
Smart grids	N/A	N/A	N/A	N/A	N/A

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* These are the pressures that are considered in the case study



Initial ranking of impacts on landscape (gas transmission)

Driver: Gas transmission	Impact				
Issue: Landscape Pressures	Visual harm and landscape character	Historic elements	Characteristic semi-natural vegetation	Tranquillity	Cumulative effects
New gas transmission network*	М	Н	Н	N/A	М
New compressors	L	Н	Н	L	М
New distribution network	N/A	N/A	Н	N/A	Н
New port infrastructure – gas reception facilities	L	L	L	N/A	L
New port infrastructure – LNG import	L	L	L	N/A	L
Marine interconnection	N/A	N/A	N/A	N/A	N/A
Biogas upgrading for injection to grid	N/A	N/A	N/A	N/A	N/A
Gas storage – underground storage in caverns or gas and oil fields.	N/A	N/A	N/A	N/A	N/A
Gas storage – above ground connection	N/A	N/A	N/A	N/A	N/A
CCGT – district heating	N/A	N/A	N/A	N/A	N/A
Biomethane injection to grid	N/A	N/A	N/A	N/A	N/A
Shale gas – connection to grid*	М	Н	Н	N/A	М

* These are the pressures that are considered in the case study

Initial ranking of impacts on landscape (carbon capture/storage)

Driver: CCS	Impact	_			
Issue: Landscape Pressures	Visual harm and landscape character	Historic elements	Characteristic semi-natural vegetation	Tranquillity	Cumulative effects
Redeployment of gas pipelines for CO2	N/A	N/A	N/A	N/A	N/A
New CO ₂ pipelines*	М	Н	Н	N/A	М
CCS process	N/A	N/A	N/A	N/A	N/A

* This is the pressure that is considered in the case study

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Analysis

Case study – Making a positive difference for energy consumers Electricity transmission lines

The pressures with the most significant impacts, identified in the previous matrix are:

- New transmission lines overhead
- Electricity storage hydro
- New gas transmissions network
- Shale gas connection to the grid
- New CO₂ pipelines

The case study hence considers an example of those pressures.

In 2012, Scottish Hydro Electric Power Distribution plc sought consent to rationalise 40km of existing overhead powerline, which ran through a significant area in the west of the Cairngorms National Park between Etteridge and Boat of Garten. The development needed to be completed prior to the new Beauly-Denny 400Kv overhead transmission line project being made fully operational. Conditions attached to the approval of that scheme by Scottish Ministers, in 2010, required removal of highly prominent steel towers supporting the electricity line between Etteridge and Boat of Garten and its replacement with a combination of smaller wooden poles, as well as undergrounding in the most visually sensitive areas.

The Cairngorms National Park Authority did not object to the proposed works between Etteridge and Boat of Garten, subject to further areas of undergrounding and the

Etteridge to Boat of Garten rationalisation scheme http://www.bbc.co.uk/news/uk-scotland-highlands-islands-15327534



micrositing of H poles. It was satisfied that impacts on the natural and cultural heritage of the area had been considered and that measures proposed not only ensured such interests would be protected but also would enhance the visual amenity of the area.

Reference

http://cairngorms.co.uk/resource/docs/boardpapers/250520 12/CNPA.Paper.5068.Planning%20Committee.Paper.1.-.Etter.pdf

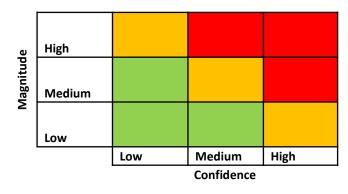


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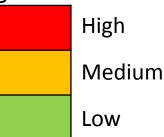
Step 2: Significance of impacts on landscape

- Now you will need to undertake further analysis, which is illustrated here utilising the case study on the previous slide
- The following tables go on to provide more detailed consideration of the significance of impacts from those individual elements of the GB regulated energy system initially ranked highest and/or that are likely to arise most frequently
- To do this you use a case-specific matrix. An example is shown on the next slide.
 - This allows you to see which impacts should be given priority in your analysis
 - In this case, visual harm and landscape character, historic elements, characteristic semi-natural vegetation and cumulative effects are the main impacts to be considered
- Ranking of magnitude is based on extent,
 duration, reversibility and frequency of impact
- Confidence in the evidence is defined in the same way as for the initial ranking

 A combined ranking of the significance of impacts is based on magnitude x confidence:



• Significance:





Significance of impacts on landscape

	Iccupi Landscano			Impost		
Impacts	Issue: Landscape Pressure: New gas transmission lines, shale gas connection to the grid and CO ₂ pipelines	Visual harm and landscape character	Historic elements	Characteristic Semi-natural vegetation	Tranquillity	Cumulative effects
	Positive or negative	-	-	-	-	-
	Extent	Local	Local	Local	Local	Local
	Duration	Temporary	Permanent	Permanent	Temporary	Permanent
An	Reversibility	Reversible	Irreversible	Irreversible	Reversible	Irreversible
nalysis	Frequency	During construction	During construction and operation	During construction and operation	During construction	During construction and operation
S	Magnitude	Low	High	High	Low	Medium
	Confidence	Medium	High	High	High	Medium
	Significance					



Significance of impacts on landscape

	Issue: Landscape			Impact		
Impacts	Pressure: Electricity transmission lines overhead	Visual harm and landscape character	Historic elements	Characteristic semi-natural vegetation	Tranquillity	Cumulative effects
	Positive or negative	-	-	-	-	-
	Extent	Local	Local	Local	Local	Local
	Duration	Permanent	Permanent	Permanent	Temporary	Permanent
An	Reversibility	Irreversible	Irreversible	Irreversible	Reversible	Irreversible
nalysis	Frequency	During construction and operation	During construction and operation	During construction	During construction	During construction and operation
N.	Magnitude	High	Medium	Medium	Low	Medium
	Confidence	High	High	High	High	High
	Significance					



Significance of impacts on landscape

	Issue: Landscape			Impact		
Impacts	Pressure: Electricity storage – hydro	Visual harm and landscape character	Historic elements	Characteristic semi-natural vegetation	Tranquillity	Cumulative effects
	Positive or negative	-/+	-	-	-	-
	Extent	Local	Local	Local	Regional	Local
	Duration	Permanent	Permanent	Permanent	Permanent	Permanent
An	Reversibility	Irreversible	Irreversible	Difficult to reverse	Difficult to reverse	Difficult to reverse
Inalysis	Frequency	During construction and operation	During construction and operation	During construction and operation	During construction and operation	During construction and operation
Si	Magnitude	High	High	Medium	Medium	Medium
	Confidence	Medium	Medium	Medium	Medium	Medium
	Significance					

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Step 3: Interactions with climate change

- Having provided more detailed consideration of the significance of impacts from those individual elements of the GB regulated energy system initially ranked highest and/or that are likely to arise most frequently, the evidence base goes on to review their potential interactions with climate change.
- This is done through developing another casespecific matrix
 - This allows you to see how the impacts of your policy/project relate to climate change and whether they are going to be amplified, remain neutral or reduce with climate change
 - In the case that is being considered here, it is shown in the matrix on the next slide that climate change is unlikely to amplify the landscape impacts

- The following tables identify how the significance of impacts may change as a result of:
 - Direct impacts of climate change on landscape
 - Climate change adaptation actions identified by key energy infrastructure providers under the Climate Change Act 2008 adaptation reporting power

Analysis

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lssue: Landscape	Impact					
	Visual harm and landscape character	Historic elements	Characteristic semi- natural vegetation	Tranquillity	Cumulative effects	
Pressure: New gas	s transmission lines, sha	ale gas connection to th	ne grid and CO ₂ pipeline	25		
Significance						
Climate change	=	=	=	=	=	
Pressure: Electrici	ty transmission lines ov	rerhead				
Significance						
Climate change	=	=	=	=	=	
Pressure: Electricity storage – hydro						
Significance						
Climate change	=	=	=	=	=	

Reference

• Adaptation Reporting Power received reports (2012) Adaptation plan reports: electricity distributors and transmitters and gas transporters.

https://www.gov.uk/government/publications/adaptation-reporting-power-received-reports

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Step 4: Preventing or minimising the impacts

- Finally, the evidence base considers prevention of impacts from those individual elements of the GB regulated energy system initially ranked highest and/or that are likely to arise most frequently, and whose significance and interactions with climate change have been reviewed
- The following tables identify:
 - Relevant existing legislation or regulation
 - Management actions that prevent or minimise impacts and can be undertaken by a range of actors
- The prevention and mitigation measures should be considered in any analysis undertaken in your policy/project development

Analysis

Annex

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Issue: Landscape			Impact		
Pressure: Electricity transmission lines – overhead	Visual harm and landscape character	Historic elements	Characteristic semi- natural vegetation	Tranquillity	Cumulative effects
Significance					
Legislation and regulation (numbers are referenced in Annex 3) Management	European legislation: 1 and 2. National legislation: Chapter 11 of 5, Section 5 of 6, Paragraphs 125- 148 of 7, 8-13, and Section 38 of 14. Route alignment Undergrounding sections Stakeholder consultation Width of easement Management of construction phase impacts: traffic, noise and vibration, dust, light and pollution. Tower design: painting and height Screening: woodland	European legislation: 1 and 2. National legislation: Chapter 12 of 5, Section 6 of 6, Paragraphs 110- 124 of 7, 9 and 12-13 and Section 38 of 14. As 'Visual harm and landscape character'	European legislation: 1, 2 and Article 10 of 3. National legislation: Chapter 11 of 5, Section 5 of 6, Paragraphs 125- 148 of 7, 8-13 and Section 38 of 14. Route alignment Stakeholder consultation Width of easement Ecological enhancement and compensation measures Management of construction phase impacts: traffic, noise and vibration, dust, light and pollution.	European legislation: 1 and 2. National legislation: Chapter 11 of 5, Section 5 of 6, Paragraphs 125- 148 of 7, 8-13 and Section 38 of 14. Route alignment Stakeholder consultation Management of construction phase impacts: traffic, noise and vibration, dust, light and pollution.	European legislation: 1-4. National legislation: 5-13 and Section 38 of 14. As 'Visual harm and landscape character'

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Preventing or minimising the impacts

	Issue: Landscape			Impact		
Impacts	Pressure: Electricity storage – hydro	Visual harm and landscape character	Historic elements	Characteristic semi- natural vegetation	Tranquillity	Cumulative effects
	Significance	High	High	Medium	Medium	Medium
	Legislation and	European legislation: 1	European legislation: 1	European legislation: 1, 2	European legislation: 1	European legislation: 1-4.
	regulation	and 2 .	and 2 .	and Article 10 of 3 .	and 2 .	National legislation: 5-13
	(numbers are	National legislation:	National legislation:	National legislation:	National legislation:	and Section 38 of 14.
	referenced in	Chapter 11 of 5 , Section	Chapter 12 of 5 , Section	Chapter 11 of 5, Section	Chapter 11 of 5, Section	
'n	Annex 3)	5 of 6 , Paragraphs 125-	6 of 6 , Paragraphs 110-	5 of 6 , Paragraphs 125-	5 of 6 , Paragraphs 125-	
۵		148 of 7 , 8 -13 and	124 of 7 , 9 , 12-13 and	148 of 7 , 8 -13 , and	148 of 7 , 8 -13 and	
S S		Section 38 of 14 .	Section 38 of 14 .	Section 38 of 14 .	Section 38 of 14 .	
nalysis	Management	Conceal elements with	Moving historical	Replanting around	Choice of access routes	
		existing woodland, new	structures that are likely	embankments.	and personnel location.	
		planting or re-profiling.	to be flooded.			

Analysis

Annex



Preventing or minimising the impacts

Issue: Landscape	Impact				
Pressure: New gas transmission lines, shale gas connection to the grid and CO ₂ pipelines	Visual harm and landscape character	Historic elements	Characteristic semi- natural vegetation	Tranquillity	Cumulative effects
Significance					
Legislation and	European legislation: 1	European legislation: 1	European legislation: 1, 2	European legislation: 1	European legislation: 1-4.
regulation	and 2 .	and 2 .	and Article 10 of 3 .	and 2 .	National legislation: 5-13
(numbers are	National legislation:	National legislation:	National legislation:	National legislation:	and Section 38 of 14 .
referenced in	Chapter 11 of 5, Section	Chapter 12 of 5, Section	Chapter 11 of 5, Section	Chapter 11 of 5, Section	
Annex 3)	5 of 6 , Paragraphs 125-	6 of 6 , Paragraphs 110-	5 of 6 , Paragraphs 125-	5 of 6 , Paragraphs 125-	
	148 of 7 , 8 -13 and	124 of 7 , 9 , 12-13 and	148 of 7 , 8 -13 , and	148 of 7 , 8 -13 and	
	Section 38 of 14 .	Section 38 of 14 .	Section 38 of 14 .	Section 38 of 14 .	
Management	Route alignment, width	Route alignment, width	Route alignment, width	Route alignment,	Route alignment, width
	of easement,	of easement, pipeline	of easement, ecological	management of	of easement,
	management of	burial and land	enhancement and	construction phase	management of
	construction phase	reinstatement, screening:	compensation measures,	impacts: traffic, noise and	construction phase
	impacts: traffic, noise and	Woodland cover and	pipeline burial and land	vibration, dust, light and	impacts: traffic, noise and
	vibration, dust, light and	landscape reinforcement,	reinstatement,	pollution, stakeholder	vibration, dust, light and
	pollution, stakeholder	stakeholder consultation,	management of	consultation.	pollution, pipeline burial
	consultation.	management of	construction phase		and land reinstatement,
		construction phase	impacts: traffic, noise and		screening: Woodland
		impacts: traffic, noise and	vibration, dust, light and		cover and landscape
		vibration, dust, light and	pollution, stakeholder		reinforcement,
		pollution.	consultation.		stakeholder consultation

Step 5: Qualitative/Quantitative Analysis

 After using the matrices to identify relevant impacts for your policy/project, identifying their significance, considering their interactions with climate change and potential prevention and mitigation measures, you should undertake further analysis to feed into any Impact Assessment being developed

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The analysis can be either qualitative or quantitative (if available)

- For the case study we are considering, further analysis should be given to the following impacts:
 - Visual harm and landscape character
 - Historic elements
 - Characteristic semi-natural vegetation
 - Cumulative effects

Analysis



Conclusions

- Individual elements of the GB regulated energy system likely to have the greatest impact on landscape and/or to arise most frequently are:
 - New transmission lines: overhead and underground
 - New /extended sub-stations
 - Electricity storage hydro
 - New gas transmission network
 - New compressors
 - Shale gas connection to the grid
 - New CO₂ pipelines for carbon capture and storage
- Their most significant potential impacts relate to:
 - Visual harm and landscape character
 - Historic elements
 - Characteristic semi-natural vegetation
- Climate change is likely to be neutral with regard to many of these impacts.
- Existing statutory legislation or regulation preventing or minimising such impacts includes:
 - Environmental Impact Assessment (EIA) Directive (<u>http://ec.europa.eu/environment/eia/eia-legalcontext.htm</u>)
 - Strategic Environmental Assessment (SEA) Directive (<u>http://ec.europa.eu/environment/eia/sea-legalcontext.htm</u>)
 - National Planning Policy Framework England (<u>https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/6077/2116950.pdf</u>)
 - Scottish Planning Policy (<u>http://www.scotland.gov.uk/Topics/Built-Environment/planning/National-Planning-Policy/newSPP</u>)
 - National Planning Framework (<u>http://www.scotland.gov.uk/Topics/Built-Environment/planning/National-Planning-Policy/npf</u>)
 - Planning Policy Wales (<u>http://wales.gov.uk/topics/planning/policy/ppw/?lang=en</u>)
 - Management actions to prevent or minimise impacts that can be undertaken by a range of actors can be identified as follows:
 - Landscape Institute and Institute of Environmental Management & Assessment (2011) Guidelines for landscape and visual impact assessment (Third Edition) Consultation draft. http://www.landscapeinstitute.org/PDF/Contribute/GLVIA3consultationdraftformembers.pdf



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Annexes

Annex 1: Making a positive difference for energy consumers Roles and responsibilities of regulators for landscape

- Development of national planning policy guidance is devolved to a country level.
 Responsibility resides with the Department for Communities and Local Government (in England), the Welsh Government and the Scottish Government.
- Most planning decisions that impact on landscape are made by local planning authorities, including national park authorities.

Annex 2:

Relevant legislation and regulation

The statutory legislation and regulations identified here provide the legal framework in relation to landscape.

Europe

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- European Landscape Convention: encourages public authorities to adopt policies and measures at a local, regional, national and international level for protecting, managing and planning landscapes throughout Europe, including natural, rural, urban and peri-urban areas, so as to maintain and improve landscape quality and enable everyone to recognise the value and importance of landscape and take part in related public decisions http://www.coe.int/t/dg4/cultureheritage/heritage/landscape/default_en.asp
- Environmental Impact Assessment (EIA) Directive: an EIA is mandatory for all projects listed in Annex I, which includes projects relevant to the UK regulated energy system (<u>http://ec.europa.eu/environment/eia/eia-legalcontext.htm</u>)
- Strategic Environmental Assessment (SEA) Directive

 (http://ec.europa.eu/environment/eia/sea-legalcontext.htm): SEA is mandatory for public
 plans, programmes and strategies that set the framework for future development consent of
 projects listed in the EIA Directive or that require an SEA under the Habitats Directive
 (http://ec.europa.eu/environment/nature/legislation/habitatsdirective/index_en.htm)

Analysis

Relevant legislation and regulation

England

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- National Parks and Access to the Countryside Act 1949: led to designation of National Parks and Areas of Outstanding Natural Beauty in England (and Wales) <u>http://www.legislation.gov.uk/ukpga/Geo6/12-13-14/97</u>
- National Planning Policy Framework: identifies that the planning system should contribute to and enhance the natural and local environment by protecting and enhancing valued landscapes. <u>https://www.gov.uk/government/publications/national-planning-policy-framework--2</u>
- A wide range of statutes, regulations and national policies directly and indirectly recognise specific aspects of landscape protection, management and planning http://www.naturalengland.org.uk/ourwork/landscape/protection/planning/default.aspx

Scotland

- National Parks (Scotland) Act 2000: led to designation of two national parks in Scotland –
 Loch Lomond and The Trossachs, and the Cairngorms.
- National Planning Framework: recognises Scotland's landscapes as a national asset of the highest value, which 'require a strong commitment to protecting and enhancing the natural, built and cultural environments, which are essential components of our quality of life and unique economic assets. <u>http://www.scotland.gov.uk/Topics/Built-</u> Environment/planning/National-Planning-Policy/npf

Relevant legislation and regulation

Scotland (continued from previous slide)

- Scottish Planning Policy includes guidance on how the Government's policies for the conservation and enhancement of Scotland's natural heritage should be reflected in land use planning <u>http://www.scotland.gov.uk/Topics/Built-Environment/planning/National-Planning-Policy/newSPP</u>
- Scottish Natural Heritage maintains a wide range of policies and guidance that relate to specific aspects of landscape protection, management and planning, including in relation to the energy system <u>http://www.snh.gov.uk/protecting-scotlands-nature/looking-after-</u> <u>landscapes/landscape-policy-and-guidance/landscape-planning-and-development</u>

Wales

- National Parks and Access to the Countryside Act 1949 (see England). <u>http://www.legislation.gov.uk/ukpga/Geo6/12-13-14/97</u>
- Planning Policy Wales provides the policy framework for the effective preparation of local planning authorities' development plans, including in relation to landscape issues. <u>http://wales.gov.uk/topics/planning/policy/ppw/?lang=en</u>

Analysis

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Preventing or minimising the impacts

Pressures: electricity transmission lines – overhead; electricity storage – hydro; new gas transmission lines; shale gas connection to the grid; CO_2 pipelines

References

European legislation

- 1. The European Landscape Convention (2000) <u>http://www.coe.int/t/dg4/cultureheritage/heritage/landscape/default_en.asp</u>
- 2. Environmental Impact Assessment (EIA) Directive (<u>http://ec.europa.eu/environment/eia/eia-legalcontext.htm</u>)
- 3. The Habitats Directive (92/43/EEC) <u>http://ec.europa.eu/environment/nature/legislation/habitatsdirective/index_en.htm</u>
- 4. Strategic Environmental Assessment (SEA) Directive (<u>http://ec.europa.eu/environment/eia/sea-legalcontext.htm</u>)

National legislation and regulation

- 5. National Planning Policy Framework England (<u>https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/6077/2116950.pdf</u>)
- 6. Planning Policy Wales (<u>http://wales.gov.uk/topics/planning/policy/ppw/?lang=en</u>)
- 7. Scottish Planning Policy (<u>http://www.scotland.gov.uk/Topics/Built-Environment/planning/National-Planning-Policy/newSPP</u>)
- 8. Technical Advice Note 5, Nature Conservation and Planning (Wales) (2009) <u>http://wales.gov.uk/topics/planning/policy/tans/tan5/?lang=en</u>
- 9. National Planning Framework (<u>http://www.scotland.gov.uk/Topics/Built-Environment/planning/National-Planning-Policy/npf</u>)
- 10. National Parks (Scotland) Act (2000) http://www.legislation.gov.uk/asp/2000/10/contents
- 11. National Parks and Access to the Countryside Act (England and Wales) (1949) http://www.legislation.gov.uk/ukpga/Geo6/12-13-14/97
- 12. The Town and Country Planning (Environmental Impact Assessment) Regulations 2011 (England and Wales) http://www.legislation.gov.uk/uksi/2011/1824/contents/made
- 13. The Town and Country Planning (Environmental Impact Assessment) Regulations 2011 (Scotland) http://www.legislation.gov.uk/ssi/2011/139/contents/made
- 14. The Electricity Act (1989) http://www.legislation.gov.uk/ukpga/1989/29/contents

Analysis

Preventing or minimising the

impacts

Pressures: electricity transmission lines – overhead; electricity storage – hydro; new gas transmission lines; shale gas connection to the grid; CO₂ pipelines

References (continued)

Making a positive difference for energy consumers

Management

- Landscape Institute and Institute of Environmental Management & Assessment (2002) Guidelines for landscape and visual impact assessment (Second Edition). Spon Press. <u>http://www.dpea.scotland.gov.uk/Documents/qA300651/A4392009.pdf</u>
- Landscape Institute and Institute of Environmental Management & Assessment (2011) Guidelines for landscape and visual impact assessment (Third Edition) – Consultation draft. <u>http://www.landscapeinstitute.org/PDF/Contribute/GLVIA3consultationdraftformembers.pdf</u>
- Swanwick, C. (2002) Landscape character assessment: guidance for England and Scotland. Countryside Agency and Scottish Natural Heritage. http://www.catpaisatge.net/fitxers/docs/metodologies/ LCA Guidance for England and Scotland.pdf
- EIA Scoping Report Thorpe Marsh Gas Pipeline (2012). Available at: <u>http://infrastructure.planningportal.gov.uk/wp-content/ipc/uploads/projects/EN070003/1.%20Pre-Submission/EIA/Scoping%20Request/121026_Thorpe%20Marsh_Scoping%20Report_low%20resolution.pdf</u>
- North Wales Connection Project Glaslyn Estuary Network Reinforcement Initial Route Selection Report (2012). Available at: <u>http://www.nationalgrid.com/NR/rdonlyres/C04792D2-6305-48F9-B29A-330A845DC281/57335/GlaslynEstuaryRouteCorridorReport.pdf</u>
 - Beauly-Denny Overheal Transmission Line Project. Stirling Visual Impact Mitigation Scheme. Report on Engagement (2011). Available at: <u>http://www.spenergynetworks.co.uk/serving_our_customers/pdf/beauly_denny/Report_on_Engagement_Final_31_08_Complete.pdf</u>

Impacts



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