

# Our approach to the design and routeing of new electricity transmission lines



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#### Introduction

#### Context:

- Requirement to connect new sources of energy
- Planning Act 2008 places new duties on infrastructure promoters
- Increased importance of 'localism'

#### National Grid's new approach:

- 'Undergrounding approach' consultation
- Key principles of the new approach
- Focus on mitigating visual impact
- Routeing and siting process
- How we will consult
- Options Appraisal

### **Context: Major electricity transmission reinforcements**







### **Context: Planning Act 2008**



- Planning Act 2008 new consent regime for major infrastructure projects
- New duty on National Grid for stronger community engagement – must demonstrate how consultation has influenced proposals
- **Frontloading**' consultation at early stages of projects and important to get applications 'right first time'
- Significant **public interest and scrutiny** of new projects

### We consulted on our new draft Approach



🗿 National Grid: Undergrounding Consultation - Microsoft Internet Explorer							
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Address 🙆 http://www.nationalgrid.com/uk/Electricity/UndergroundingConsultation/							
About the Electricity Industry Major Infrastructure Projects	Undergrounding Consultation	Page Tools					
Undergrounding Consultation	Ffurf Gymraeg / Welsh version						
Ymgynghoriad ar Osod Ceblau o Dan Ddaear	We are currently reviewing our existing approach to the undergrounding of high voltage electricity transmission cables.	📇 Print This Page 🖂 Email This Page					
Electricity Alliances & Infrastructure Projects	We use the word 'undergrounding' to refer to the placing of sections of the electricity transmission network underground instead of using overhead lines and towers (also known as pylons). This can be for a number of reasons, such as protecting views and important landscapes or in parts of built up						
Balancing Services	urban areas where overhead lines would not be possible.						
System Operator Incentives Charging	A key part of our review has been consultation with a wide range of industry, political, non- governmental and environmental stakeholders and members of the public on a proposed Approach to Undergrounding.						
Codes	The consultation exercise started on 15 December 2010 and ended on 4 July 2011.						
Offshore Transmission Project	Consultation has now ended and the deadline for responses has now passed.						
Electricity Connections and Agreements	We are now working through all of the comments submitted. All comments will be reviewed and will inform our new approach to undergrounding, which we plan to publish later in the Summer.						
Operational Data	For more information please see the undergrounding consultation web site.						
Operational Info	For further information please see our supporting documents.						
Onerating in 2020							
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### **Consultation process**

- Workshop with key statutory consultees in October helped us prepare a draft Approach for wider public consultation
- Consultation period from December 2010 to July 2011.
- Online questionnaire, or paper copy if requested
- **Emails**, **letters** and **phone calls** accepted and considered fully
- Three regional workshops; two for stakeholders and one specifically on landscape issues Birmingham, London, Cardiff
- Meetings with interested stakeholders to explain the approach in detail Cumbria, Somerset, Suffolk

# Consultation feedback key messages



- New approach should be a transmission routeing process, rather than simply an undergrounding process
- Vast majority of the public in favour of undergrounding rather than overhead lines
- all transmission technologies (overhead, underground and sub-sea) should be considered and appraised throughout the route planning process
- Each project should be considered on a case-by-case basis
- Designated areas such as National Parks and Areas of Outstanding Natural Beauty must be treated as special cases
- Valued landscapes should be protected as far as possible, whether or not they have a specific designation
- Cost is one factor but not the over-riding driver for one technology to supersede another
- Early and meaningful community consultation and transparency is key to the success of future projects



### The new approach: key principles



- An approach to **routeing lines** wider than undergrounding
- A process rather than a policy
- Recognises environmental and social impacts as well as system and cost issues
- Early and meaningful engagement with stakeholders and communities to understand local considerations
- Options Appraisal methods to be applied on a case-by-case basis – no preference for overhead or underground solutions
  - Greater emphasis on **mitigating visual impact** – recognise that not all sites that are valued or important are in designated areas

# Greater focus on mitigating visual impact

Sensitive routeing of overhead lines

Screening and landscaping

Rationalisation of **existing lines** 

Alternative pylon designs

Placing new lines underground













## The routeing and siting process





### How we will consult

- Transparent process intended to inform and review judgements and make all information accessible.
- Several stages of consultation.
- Key stakeholders (e.g. local authorities, Environment Agency, English Heritage/Cadw, Natural England/CCW, Marine Management Organisation, WAG, Joint Nature Conservation Committee) consulted at earliest stages for best technical advice and local knowledge.
- Group of stakeholders expanded and refined as project develops – e.g. NGOs, parish councils, local interest groups.
- First public consultation at Stage 2 (Outline Routeing and Siting) will cover all issues – need case, strategic options etc.
- Results of all consultations published.



## **Options Appraisal process**

Environment	Landscape/Visual, Ecology, Cultural Heritage, Air Quality, Noise and Vibration, Soils and Geology, Water issues, Resources and Waste,	Multi-Criteria Analysis (MCA) – structured and transparent approach			
Cooio	Greenhouse Gases and Energy Efficiency, Climate Change Adaptation	<ul> <li>Assesses environmental, socio- economic, technical and cost issues</li> </ul>			
Socio- economic	People and Communities, Aviation and Defence, Traffic and Transport, Local Economic Impact	Compares options and analyses relative costs and benefits			
		No 'hierarchy' between topics			
Technical I	Technical, Safety	Projects will take into account views of stakeholders in determining the weight attributed to different sub- topics.			
Cost I	Capital Cost, Lifetime Cost	<ul> <li>Back-check and review process.</li> </ul>			
		- Dack-check and review process.			

### Options appraisal and consultation nationalgrid process





### Conclusions

- An approach to routeing lines
- A process not a policy
- Early and meaningful engagement and consultation
- Greater emphasis on mitigating visual impact
- Recognition of environmental and social impacts as well as system and cost issues