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DEPARTMENT OF ENERGY & CLIMATE CHANGE

Joint Ofgem/DECC working group:

4th Offshore Transmission Coordination Group Meeting

25 July 2011

Agenda

1. **Welcome and introductions**

2. **General updates, including:**
   a. Project update
   b. DECC Renewables Roadmap
   c. Project TransmiT

3. **Feedback from the third expert workshop – planning and consenting**

4. **Work stream 1: approach and emerging themes (TNEI/PPA energy)**

5. **Feedback from the fourth expert workshop – emerging regulatory options (Redpoint)**

6. **Next steps**

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2. Updates

a. Project Update

Progress since last OTCG meeting

- Actions from previous meeting have been undertaken/are being undertaken
- Third and Fourth workshops held on 17 June and 21 July – outputs to be discussed today:
  - Planning and consenting
  - Key barriers, potential measures, criteria for assessing measures
- Ofgem's appointed consultants, TNEI/PPA and Redpoint , in analytical phase for asset delivery and commercial/regulatory issues workstreams
- DECC has advertised contract for research on international comparisons, to inform work

What will happen over the next few months

- Continued analysis through workshop/OTCG meetings, with presentations and discussion on emerging findings
- Intention to publish a joint conclusions report (for consultation) in the winter

UK Renewables

Gary Shanahan
Deputy Head of Strategy & Delivery
Office for Renewable Energy Deployment
DECC

Renewables Roadmap

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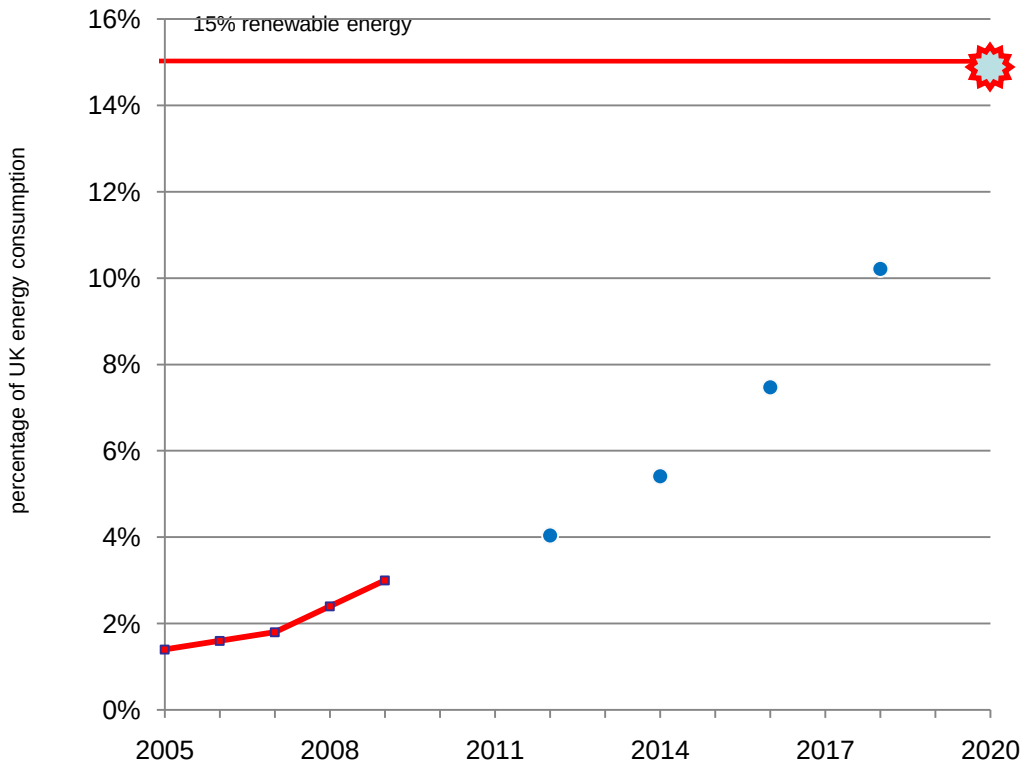
- **The Renewable Energy Roadmap is UK wide,** signed by all Devolved Administrations
- Includes a **plan of action** to drive renewables deployment and reduce costs
- F**ocuses on 8 key technologies** which have either
  - the greatest potential (more than 90%) to help meet the 2020 target in a cost effective and sustainable way,
  - or offer the greatest potential for the UK in the decades that follow
  - Identified from a range of bottom up and top down analysis

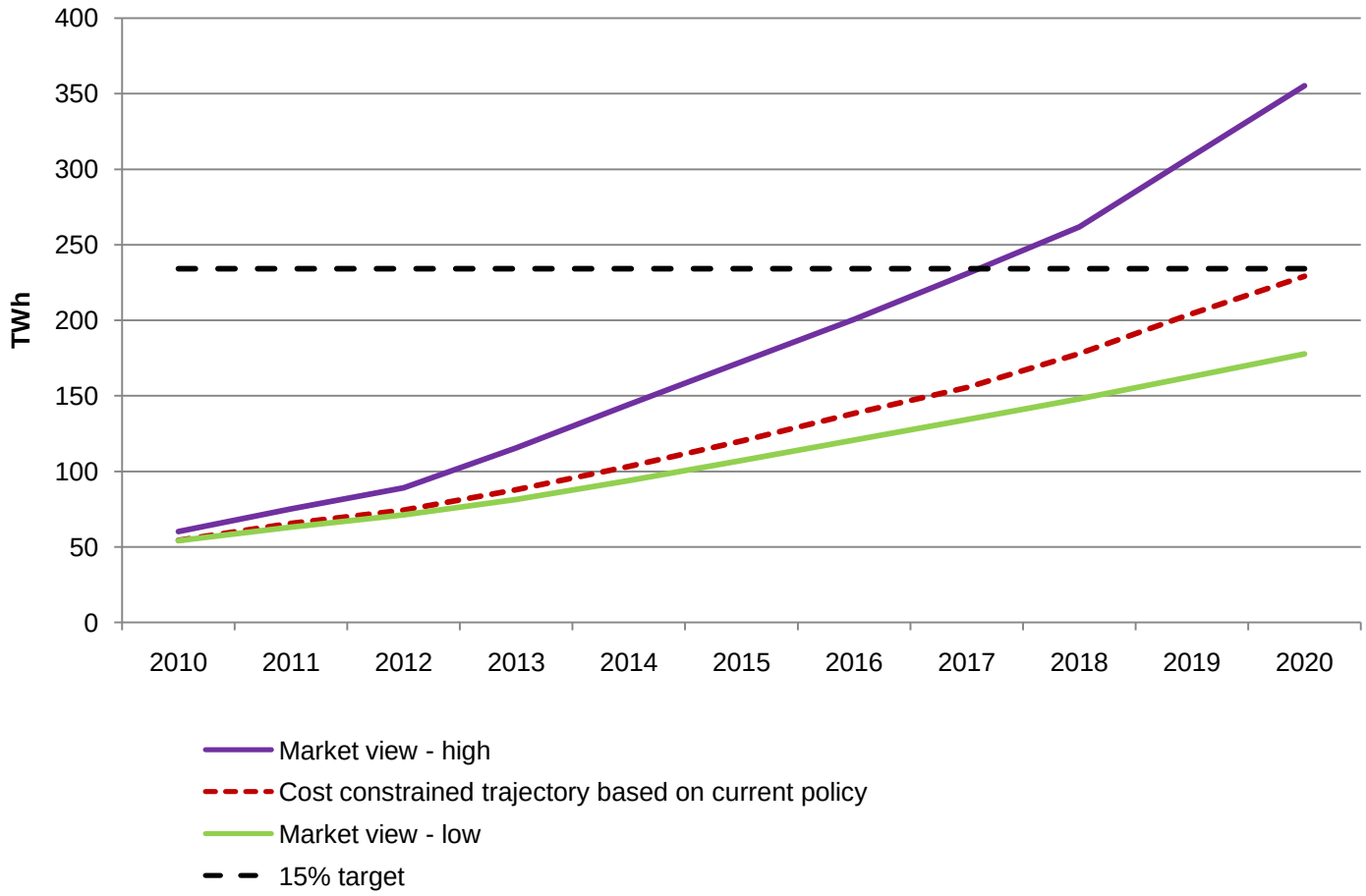
- Offshore technologies important for both 2020 and beyond

Targets are a massive challenge but provide an equally large opportunity

Progress against the 15% Renewable target



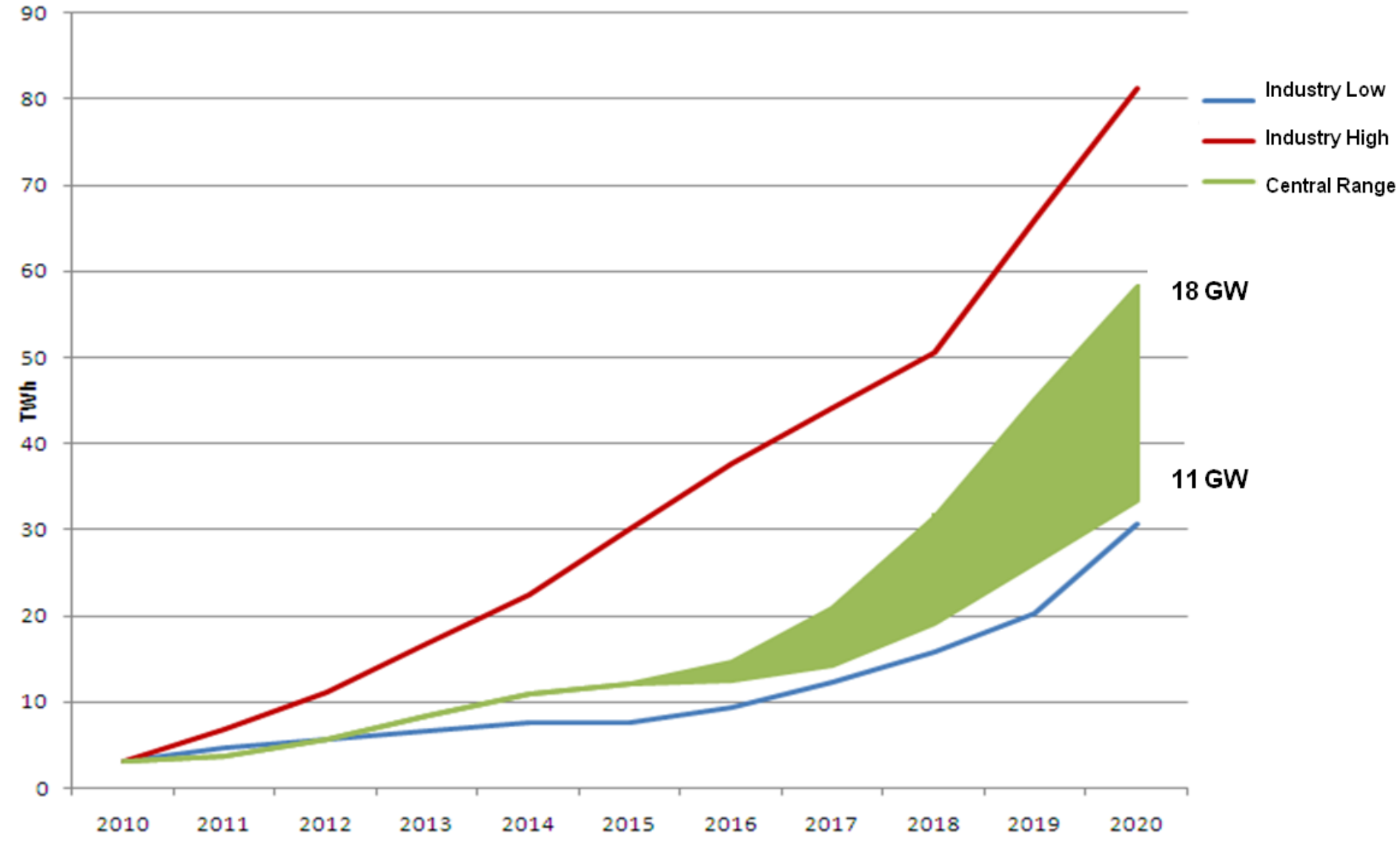
Creating the Roadmap from a “bottom up” understanding of deployment



Central Scenario

	Projected generation in 2020 (TWh)
Onshore wind	24-32
Offshore wind	**33-58**
Biomass electricity	32-50
Marine	1
Biomass heat (non-domestic)	36-50
Air-source and Ground-source heat pumps (non-domestic)	16-22
Renewable transport	Up to 48
Others (including hydro, geothermal, solar and domestic heat)	14
Estimated 15% target	234

Deployment potential to 2020 for offshore wind



Renewables Roadmap

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•It sets out a **comprehensive suite of targeted, practical actions** to remove barriers. It includes an **action plan for each of the 8 technologies which show;**

- Estimated changes in capacity and growth rate (including analysis of pipeline)
- Identified challenges to their deployment
- A bespoke package of actions to address those challenges – both those of a cross-cutting nature e.g. planning, grid, finance, supply chains and technology specific such as radar

•It recognises that the constraints to deployment, technology costs and innovation breakthroughs will change with time and establishes a process for monitoring and evaluating progress which will enable us to adjust our approach. **We propose to publish updates on an annual basis.**

Offshore wind priority actions

- Establishing an industry Task Force to set out path and action plan to reduce costs to £100/MWh
- Innovate to reduce costs
- Develop the supply chain
- Minimise investment risk
- Ensure cost-effective grid investment and connection
- Planning and consenting

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Office for Renewable Energy Deployment

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b. Update: Project TransmiT

Charging

- Launched a significant code (SCR) review in July - scope is limited to considering the range of changes from socialised charging to improved Investment Cost Related Pricing (ICRP) .
- Established a SCR technical experts working group
  - Lead by Ofgem with input from industry representatives (including offshore stakeholders)
  - Aim is to develop the technical detail of options for change
  - Six meetings – held between July and September
  - Options identified by the group will input into Redpoint modelling, which seeks to quantify the impacts of potential change
- Expect to consult on options for change under TransmiT and their impacts in October, and direct NGET to raise a change - if appropriate - after December
- Timely implementation will require close collaboration between industry and Ofgem.

Connections

- CMP192 (user commitment modification) is out for industry working group consultation
- Ofgem has not set out a view on whether a SCR is needed
- Expect to provide a public issue update in coming weeks.

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3. Feedback from the third expert workshop – planning and consenting

Colin Green

Overview

Planning and consenting has been highlighted as a key issue in previous workshop discussions and meetings.

Key issues identified previously:

- Decisions on project scope/consenting frame the envelope of future project decisions;
- Important to identify and assess cumulative impact of projects – is there benefit of having a network vision?
- Planning system – can strategic consents be obtained?
- Need case – what level of detail will planning/consenting authorities require?
- Who takes strategic consent risk/costs of consenting for wider benefits?

Third workshop explored these key issues

Workshop findings

A draft note of the 3rd workshop has been circulated.

Key points:

- The need for clear guidance on how anticipatory consents will be treated – by consent bodies and Ofgem;
- Clarity on the transferability of rights to a third party;
- Conflict between assessment of cumulative environmental impact and the inability to take anticipatory actions to minimise it;
- Consenting large infrastructure projects may increase likelihood of rejection - concern that local communities may oppose large scale projects; and
- May need to be changes in regional planning systems – to allow wider efficient associated development

Questions for the group:

Do you consider that the planning system a barrier to network coordination?

How should consenting costs and risks be allocated?

4. Workstream 1: Asset Delivery

Offshore Transmission Coordination Group

Graeme Bathurst
Technical Director
TNEI Services Ltd

Neil Pinto
CEO
PPA Energy

Newcastle, Manchester, London

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Introduction

- Specifically the Asset Delivery team has:
  - A strong understanding of offshore transmission technologies, their maturity, cost base and applicability
  - A detailed understanding of the OFTO process, transmission system development and network operations
  - A firm appreciation of the challenges and barriers to the large scale development and integration of offshore wind
  - An extensive understanding of the planning, environmental constraints, and consenting requirements for the development of windfarms and network infrastructure

Asset Delivery Methodology

- ODIS systems used as starting point given timescale & complexity of the problem and then explored from there
- The overall analysis approach is staged in the following manner:
  - Gather and review relevant existing available information
  - Establish generation scenarios
  - Establish feasible network scenarios to achieve required export
  - Overlay practicalities and timing implications
  - Assess construction options and key project sensitivities and uncertainties in the wider network development drivers

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Development of Options

- Indicative generation scenarios developed bottom-up with timings based on national scenarios as well as practical project basis at the zonal level
- CapEx modelling done on a unit-cost basis
- Asset optimisation to consider the following key points:
  - location and capacity ranges of the offshore wind resources and possible onshore network connection points
  - timing of the project developments, connection requirements, network reinforcements, onshore generation
  - characteristics and readiness of network technology
  - required level of system reliability and security of supply (SQSS)

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Analysis of Options

- Project CapEx, OpEx and capitalised losses
- Degree of network security and availability
- Network capacity phasing and exposure to delays
- Deliverability considerations of different reinforcements
- Identification of strategic pre-investment requirements for concept configuration and supply chain availability
- Interaction with planning and consenting process and sensitive landscape and foreshores

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Driving a Technology Breakthrough

- Picking winners is inherently risky
- Managing technology development is a well established known – BUT, not everyone knows how to, or is good at it...
- Key points are focusing on the key issues
- Structured development plans
- Managing and correct placement of risk
- Identifying and addressing technology gaps
- HVDC Pilot – what is needed, how to help this happen

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Key Messages thus far

- There may be benefit of a central co-ordinating role to define the transmission need cases
- Findings are sensitive to onshore network and generation development assumptions
- Technology selection has a risk element to consider due to maturity of the supply chain
- Transmission capacity block size needs to be weighted against build-out rate to manage stranding risk

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Questions for the Group

- What does the group see as the most significant delivery challenges?
- What are the most important coordination issues?
- Is transmission technology viewed as a development risk?

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ENERGY · IDEAS · ANALYSIS

5. Feedback from 4th OTCG workshop – Emerging regulatory, commercial and incentive options

Ilesh Patel, Director

Date: 27 July 2011

Client: Ofgem/DECC

Agenda and coverage: 4th OTCG Expert Workshop

REDPOINT

Part A – Issues and Evidence

- Redpoint presentation: review of current regime, potential problems and evidence required
- Discussion of problems

Part B – Assessment Criteria

- Redpoint presentation: overview of assessment criteria and how this fits into the evaluation framework.
- Discussion of criteria

Part C – Potential solutions

- Redpoint presentation: possible policy measures and how they address potential problems
- Discussion questions
  - How would the options work?
  - How would they score against the assessment criteria?

Initial assessment criteria

REDPOINT

Overall project objectives	Criteria for assessment
Support timely build of offshore generation and wider sustainability	1. Support timely and economic build of offshore generation to 2020 2. Support timely and economic build of offshore generation to 2030 3. Local environmental impacts
Promote reliability and security of supply	1. Flexibility and reliability of GB transmission network 2. Flexibility in system operation
Deliver economic benefits	1. Deliver economic benefits of coordination 2. Promote economic efficiency through charging and role of markets 3. Impact on innovation/dynamic efficiency 4. Risk of stranded transmission assets 5. Impact on supply chains 6. Financeability of offshore investment 7. Breadth of potential investors
Ensure a fair and proportionate distribution of benefits, costs and risks	1. Risk for consumers 2. Risk of excessive rents 3. Efficient allocation of risk
Be deliverable and flexible	1. Flexibility to deal with range of future possibilities 2. Compatibility with current arrangements/risk of disruptions 3. Level of complexity and administration cost 4. Risk of unintended consequences

Potential problem	Potential solutions
Lack of a vision for coordination	Information provision; Design blueprint
User commitment rules require securitisation of anticipatory investment	Clarify regulatory arrangements; Sharing of risk with consumers and/or OFTOs; Consumers underwrite
Transmission charging means first generator has to pay for oversizing	Generators pay for oversizing; Open season arrangements; Sharing of cost with consumers and/or OFTOs; Consumers pay for oversizing
Lack of incentive for coordination where there are impacts on other developers	Generator responsibility; Regional OFTO to provide coordinated solution; Design blueprint
Anticipatory investment process uncertainty	Clarify what should be provided on a 'no regrets' basis; Clarify applicability of existing processes; Create new process for generators/OFTO builders
Asset incompatibility	Standardisation of operating parameters; Standardisation of assets
Planning and consenting process can block anticipatory investment	Clarify IPC guidance; changes to Scottish arrangements
No mechanism for linking with trans-national interconnectors	Regulatory compatibility
Developers unwilling to take risks on new technology that could deliver widespread benefits, exacerbated by supply chain	Developers underwrite new technology risks; Sharing of new technology risks; Consumers underwrite new technology risks
Developer cashflow constraints impinge on willingness to undertake anticipatory investment	Generator responsibility; Sharing of risk with consumers and/or OFTOs; Consumers underwrite

Questions for the OTCG and next steps

REDPOINT

- **Key questions for the OTCG:**
  - Have the appropriate set of issues been covered?
  - Do you believe the assessment criteria are appropriate?
  - Do you believe the potential solution are, in general, appropriate?
- **Next steps:**
  - Detailed points which will be recorded, minuted and published on the Ofgem website
  - Further development of thinking based on feedback received

Thank you

Ilesh.Patel@redpointenergy.com
Director

Date: 27 July 2011 **Client**: Ofgem/DECC

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6. Next steps

Next steps

Homework

- Please note any agreed list of actions for the group following today's meeting.

Consultancy input

- Expect that consultants' work will be substantively complete during August/early September

Stakeholder engagement

- We are looking to engage with stakeholders (individuals and groups) over the next 6-8 weeks to get individual views
- Next OTCG meetings – to be held on 19 September and 1 November
- Fifth expert workshop to be held on 7 September