

Contract Development Customer Update – Part I

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Agenda – Part I

◆ Part 1

- ◆ Short Term Operating Reserve Review
- ◆ Reserve Review
- ◆ Demand Side Development



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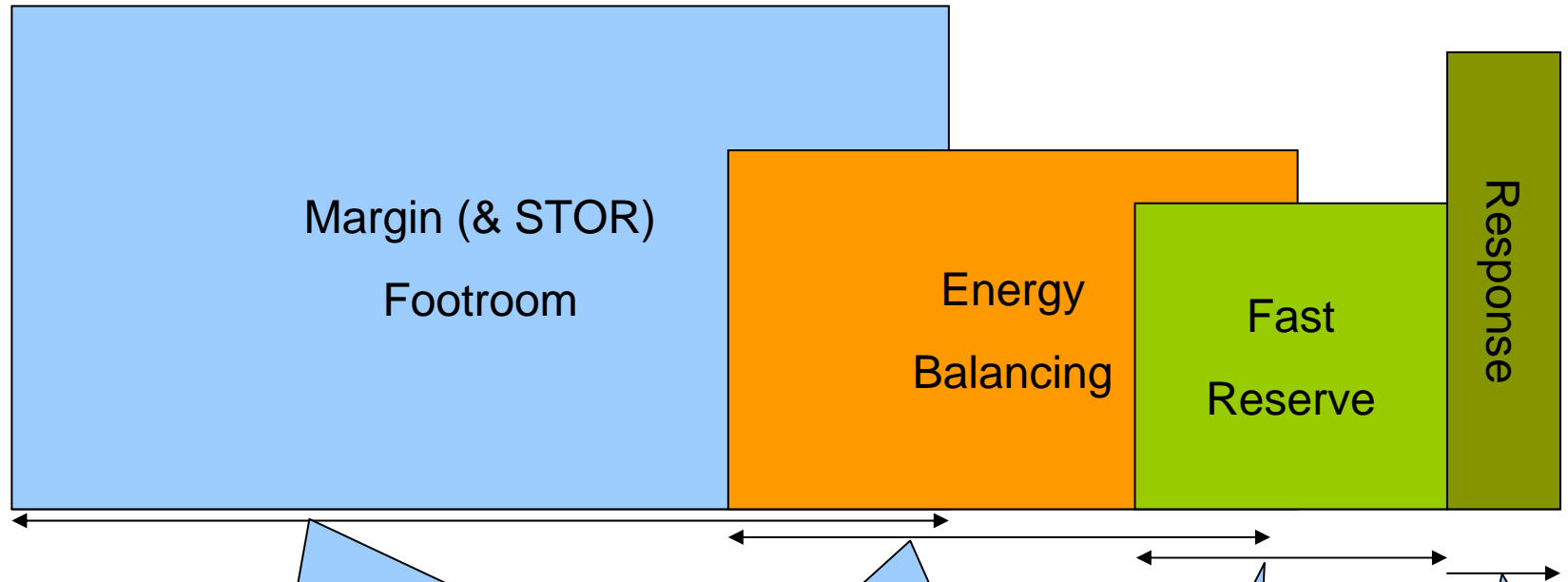
Short Term Operating Reserve Review



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Overview of energy components



Margin / Footroom – from
Day Ahead through to
despatch timescales (Day
Ahead - ~90 mins)

STOR – down to 20 mins
ahead of time

BM Actions to
meet energy
From 90 to 2
mins ahead of
time

Fast
Reserve -
<5 mins

Response
10 to 30
seconds

STOR – Review To Date

- ◆ Published Thursday 29th October, 2009
- ◆ 10 Responses received by Friday 13th November
- ◆ Detailed Change Proposal published Friday 27th November 2010



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STOR Review – Outline Change Proposals Document (1)

◆ Industry Response Summary

- ◆ Supportive of allowing flexible providers to tender for STOR Years 1 and 2
- ◆ Supportive of extending the maximum period for longer-term STOR, proposing either
 - ◆ 15 years
 - ◆ Lifetime of asset
 - ◆ Guaranteed income stream
- ◆ Current levels of market uncertainty and information provision potential barrier to new development



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STOR Review – Outline Change Proposals Document (2)

- ◆ Semi-committed service would be a welcome development
- ◆ Allow affected service provider opportunity to reject proposals
- ◆ Additional information in the Assessment Principles would be welcome
 - ◆ Response times
 - ◆ Unit reliability



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STOR Review – Detailed Change Proposals Document

- ◆ Detailed Change Proposal published Friday 27th November 2010
 - ◆ Flexible tenders for Year 2 from Tender Round 10
 - ◆ Longer-term tenders up to 15 Years from Tender Round 10
 - ◆ Assessment Principles to be updated
 - ◆ Ability to reject amendment to SCTs – FFR terms
- ◆ Other issues to be given consideration as part of a wider reserve review in 2010/11



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STOR Review – Detailed Change Proposals Document

- ◆ Outline Change proposals Document published less than 6 months prior to 1st April, 2010
 - ◆ Changes to SCTs cannot strictly come into effect until 1st April 2011
 - ◆ Proposals are beneficial to industry
 - ◆ Allow submissions of tenders for Tender Round 10, 11 & 12



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STOR Review

**For further information contact your Account
Manager or Craig.Maloney@uk.ngrid.com**



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Reserve Review



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Reserve Review - Overview

- ◆ Comprehensive Review of Reserve services
 - ◆ Recognising the need to act now to meet future requirements
- ◆ Work ongoing to address short term issues through other workstreams
 - ◆ e.g. STOR Review
- ◆ Reserve Review to be focussed on the medium and longer term challenges and opportunities to reserve provision and procurement



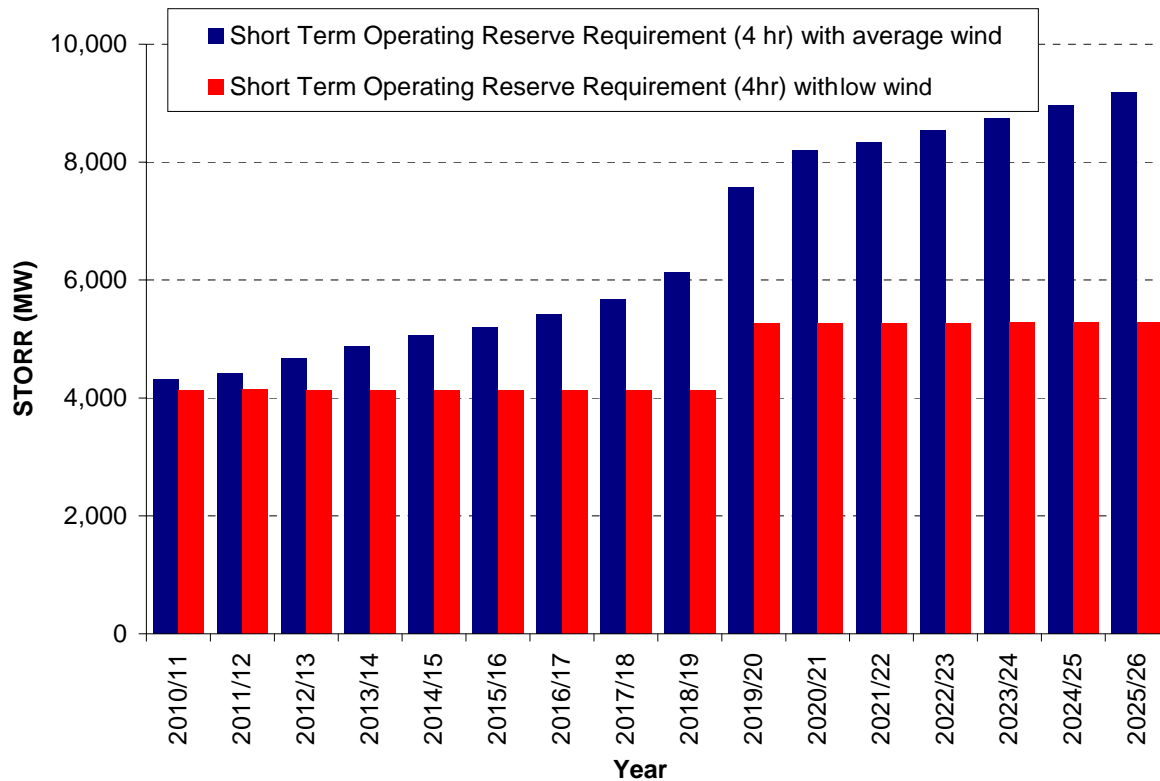
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Reserve and Operating Margin

- ◆ Reserve requirement under 'Gone Green'

- ◆ Short Term Operating Reserve for average wind and low wind conditions



Reserve Review – Indicative Structure

- ◆ Two Principle Workstreams
 - ◆ Workstream 1: Short/Medium Term Challenges – up to 2015/16
 - ◆ Workstream 2: Longer Term Developments – beyond 2015/16
- ◆ 2015/16 chosen as the point at which the existing LCPD opted out fleet will close
 - ◆ Significant proportion of existing reserve procured via services at these LCPD opted out stations
 - ◆ Point at which reserve service may need to be restructured more significantly



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Reserve Review – Indicative Structure

- ◆ Workstream 1: Short/Medium Term Challenges – up to 2015/16
- ◆ Focussed on the existing services:
 - ◆ BM Start Up
 - ◆ STOR
 - ◆ Fast Reserve
 - ◆ Fast Start
- ◆ Aim is to develop these services to get best out of them over next 5-6 years



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Reserve Review – Indicative Structure

- ◆ Workstream 2: Longer Term Developments – beyond 2015/16
- ◆ Aims are a review of
 - ◆ Likely reserve requirements in the run up to 2020 and beyond
 - ◆ Likely sources of reserve (demand side, synchronised and standby generation etc)
 - ◆ Contractual structure and systems required



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Reserve Review – Way Forward

- ◆ Pre-consultation
 - ◆ Propose project structure, objectives and initial ideas from National Grid
- ◆ 2010: Initiate Industry Working Groups
 - ◆ Seek views of industry on the ideas and gain insight into the areas and developments other parties would like to examine
 - ◆ Aim to discuss and agree any relevant contractual / service changes



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Reserve Review – Contact

For further information contact your Account Manager or Mark.Duffield@uk.ngrid.com



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Demand Side Development



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Demand Side Contract Development

National Grid continue to enhance the service provision from Demand Side sources. Recent steps include:

- ◆ Hosting Balancing Services Open Day in July at the ENCC
 - ◆ <http://www.nationalgrid.com/uk/Electricity/Balancing/demandside/supportingactivities/presentations/>



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Demand Side Contract Development

National Grid continue to enhance the service provision from Demand Side sources. Recent steps include:

- ◆ Exhibiting and presenting at the Energy Event in September
 - ◆ <http://www.nationalgrid.com/uk/Electricity/Balancing/demandside/supportingactivities/presentations/>



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Demand Side Contract Development

National Grid continue to enhance the service provision from Demand Side sources. Recent steps include:

- ◆ Enhancing the number of companies offering an aggregation service
 - ◆ <http://www.nationalgrid.com/uk/Electricity/Balancing/demandside/aggregators/>



+



= 3MW

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Demand Side Contract Development

National Grid continue to enhance the service provision from Demand Side sources. Recent steps include:

- ◆ Writing a joint paper with a leading player in the automotive industry on the ability of Electric Vehicles to provide ancillary services



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Demand Side Contract Development

For further information contact your Account Manager or
David.Wildash@uk.ngrid.com



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Contract Development Customer Update Part II

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Agenda – Part II

- ◆ Commercial Intertrip Development Update
- ◆ Grid Trade Master Agreement – Schedule 7B
- ◆ Access to Windfarms
- ◆ Interim Connect & Manage



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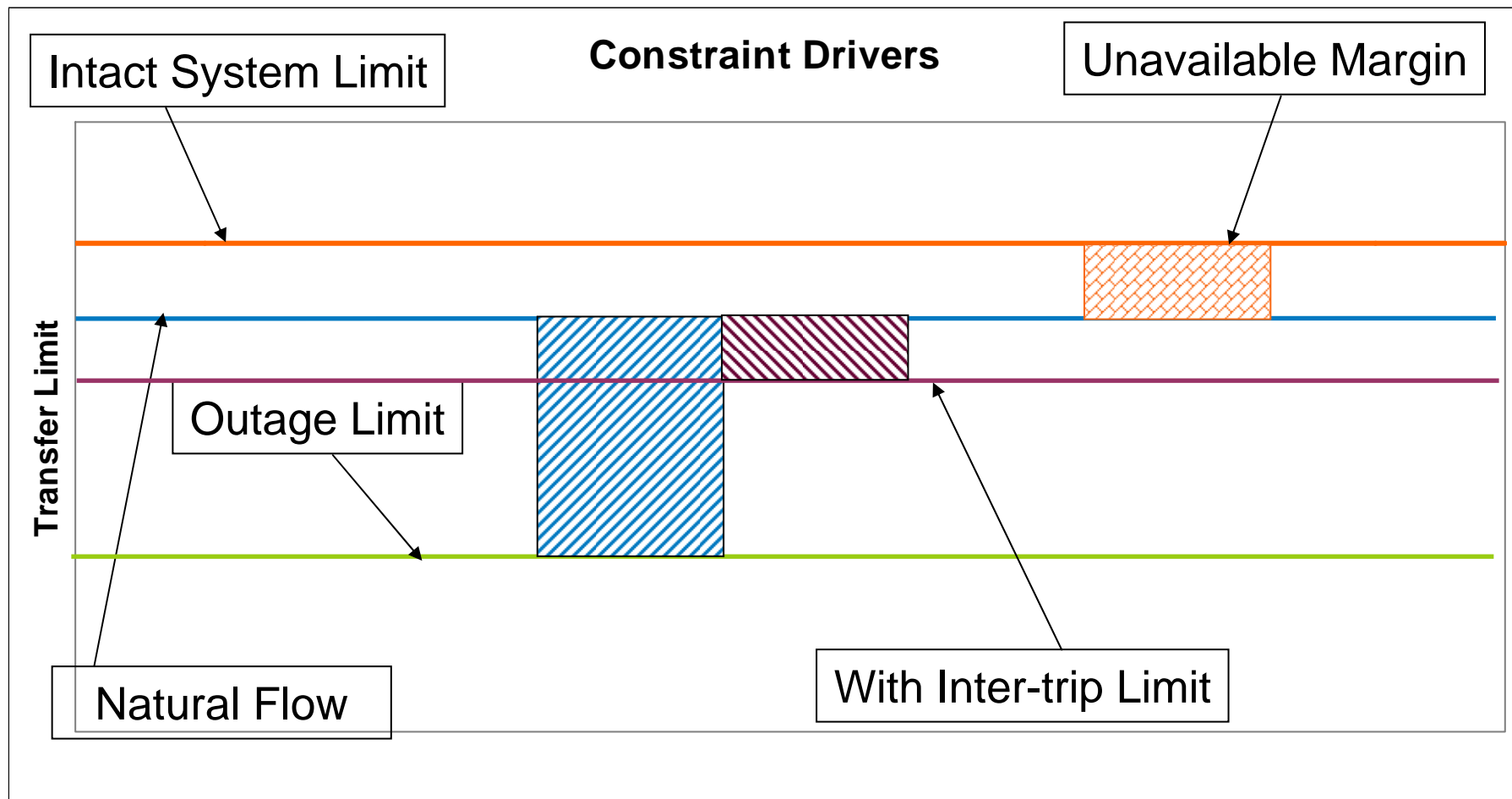
Commercial Intertrip Development Update



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Drivers of Constraints



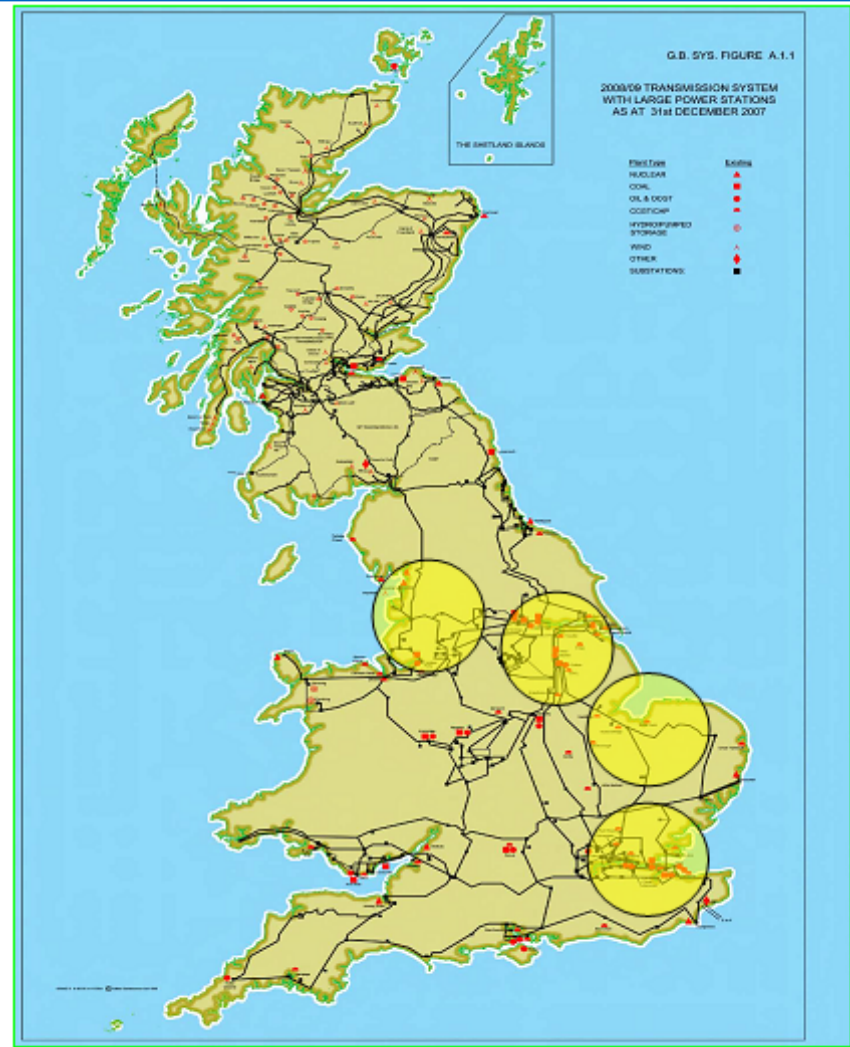
Future Commercial Intertrips - Requirements Recap

Four areas identified in July 09 where Commercial intertrips are required to:

- ◆ Facilitate connection works
- ◆ Manage Transmission System outages in 2010/11 and 2011/12
- ◆ In order to ultimately Minimise Transmission System constraints



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Progress to Date

- ◆ Potential Providers approached in July 09
 - ◆ Invited to provide indicative contract prices
- ◆ Technical details of each requirement ascertained within National Grid
 - ◆ Timescales of outages
 - ◆ Effectiveness of potential providers against each constraint studied
 - ◆ Ability to install tripping equipment to meet timescales



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Progress to Date

- ◆ Assessment

- ◆ Interested providers assessed against each requirement – contract prices, cost of installing equipment/ extending current schemes etc
- ◆ Assessment principles now published on the National Grid website:

www.nationalgrid.com/uk/Electricity/Balancing/services/systemsecurity/intertrips/

- ◆ **Next Steps**

- ◆ Progress discussions with identified providers



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Other recent Intertrip work

- ◆ Ongoing work with Scottish Transmission Owners
- ◆ Extended existing Cheviot Intertrip to new station
- ◆ Developing existing Cheviot Intertrip to accommodate new Trip Condition
 - ◆ Amending contracts accordingly



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Next Steps

Longer Term

- ◆ Determine appropriate market reporting for Commercial intertrip services in order to:
 - ◆ Increase transparency
 - ◆ Facilitate competition in the service
- ◆ Further information contact your Account Manager or Katharine.Clench@uk.ngrid.com



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Grid Trade Master Agreement – Schedule 7B



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Moyle Interconnector Trade

◆ Why National Grid trade over Moyle Interconnector

- ◆ A new tool to further manage constraint costs within and from Scotland
- ◆ Assists NGET in actively managing the Scottish Export boundary by altering energy flow over Moyle Interconnector



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Moyle Interconnector Trade

◆ How to facilitate the trade

- ◆ GTMA Schedule 7B developed
- ◆ Accommodate Single Electricity Market and GB market
- ◆ Principles of Schedule 7A for IFA trade

◆ Implementation Update

- ◆ One counterparty signed
- ◆ Other counterparties expressing interest



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Moyle Interconnect Trade

◆ Interested?

Please contact:

David Preston (david.a.preston@uk.ngrid.com 01926 655909)
or

Craig Maloney (craig.maloney@uk.ngrid.com 01926 655896)



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Access to Windfarms



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Managing the Challenges of Inflexible Generation

- ◆ Short term strategy (< 6 months)
 - ◆ Raising industry awareness of Grid Code obligations and processes
 - ◆ Encourage Balancing Mechanism parameters review of BEGA and BCA sites
 - ◆ Commercial contracts to access BELLA sites



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Managing the Challenges of Inflexible Generation

- ◆ **Medium term (6-12 months)**
 - ◆ Develop appropriate systems and processes to facilitate data submission and BM Participation
 - ◆ Develop enduring commercial service (whilst maintaining integrity of market principles) ahead of 2010 summer period
- ◆ **Long Term (12 month +)**
 - ◆ Need to develop a solution that works for all parties
- ◆ Contact – Your account manager or Sam.Wither@uk.ngrid.com



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Interim Connect & Manage



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Interim Connect & Manage – Reminder

- ◆ Method to facilitate earlier connection
- ◆ A Connection date under ICM will be available where:
 - ✓ Consents are achievable within the requested timescales
 - ✓ Local works can be completed by the required date
 - ✓ Derogations against SQSS compliance are approved
- ◆ 5.5GW Offered ICM Connection

Interim Connect & Manage

- ◆ Development of commercial tools to complement ICM
- ◆ Diverse constraint management options are required

- ◆ Wider use of Commercial Intertrips
- ◆ Soft trips
- ◆ Active Management Systems

- ◆ Develop commercial frameworks



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