

Electricity Operational Forum



26th June 2013

Welcome to the Interim Operational Forum



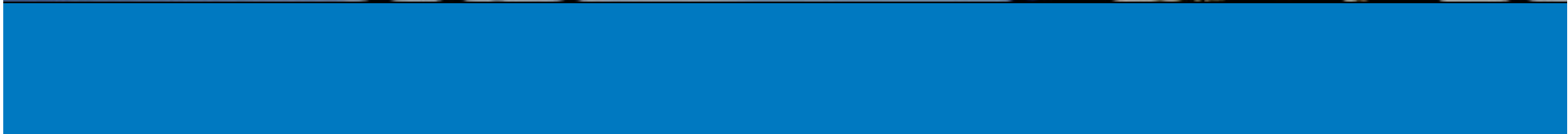
Duncan Burt – Head of Commercial Operation



Operational & System Operator Cost – Update
BSUoS Forecasting & Income Adjusting Events
Voltage Management & Inertia Requirement
EU Balancing Code Developments
SO Incentives 2013 to 2015

Question?

E-mail – commercial.operation@nationalgrid.com





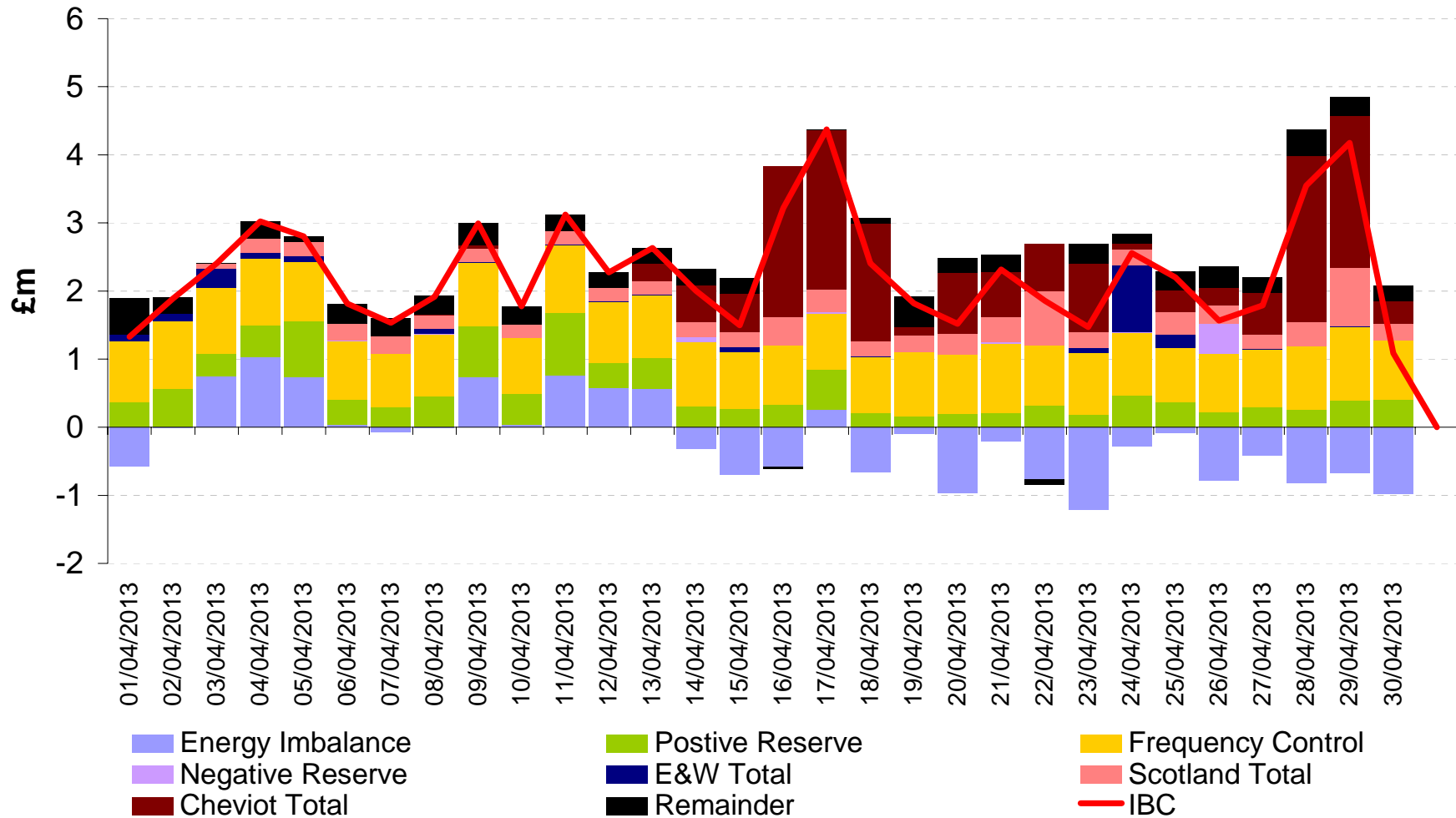
System Operator Cost Update



Jo Faulkner
Commercial Optimisation Manager

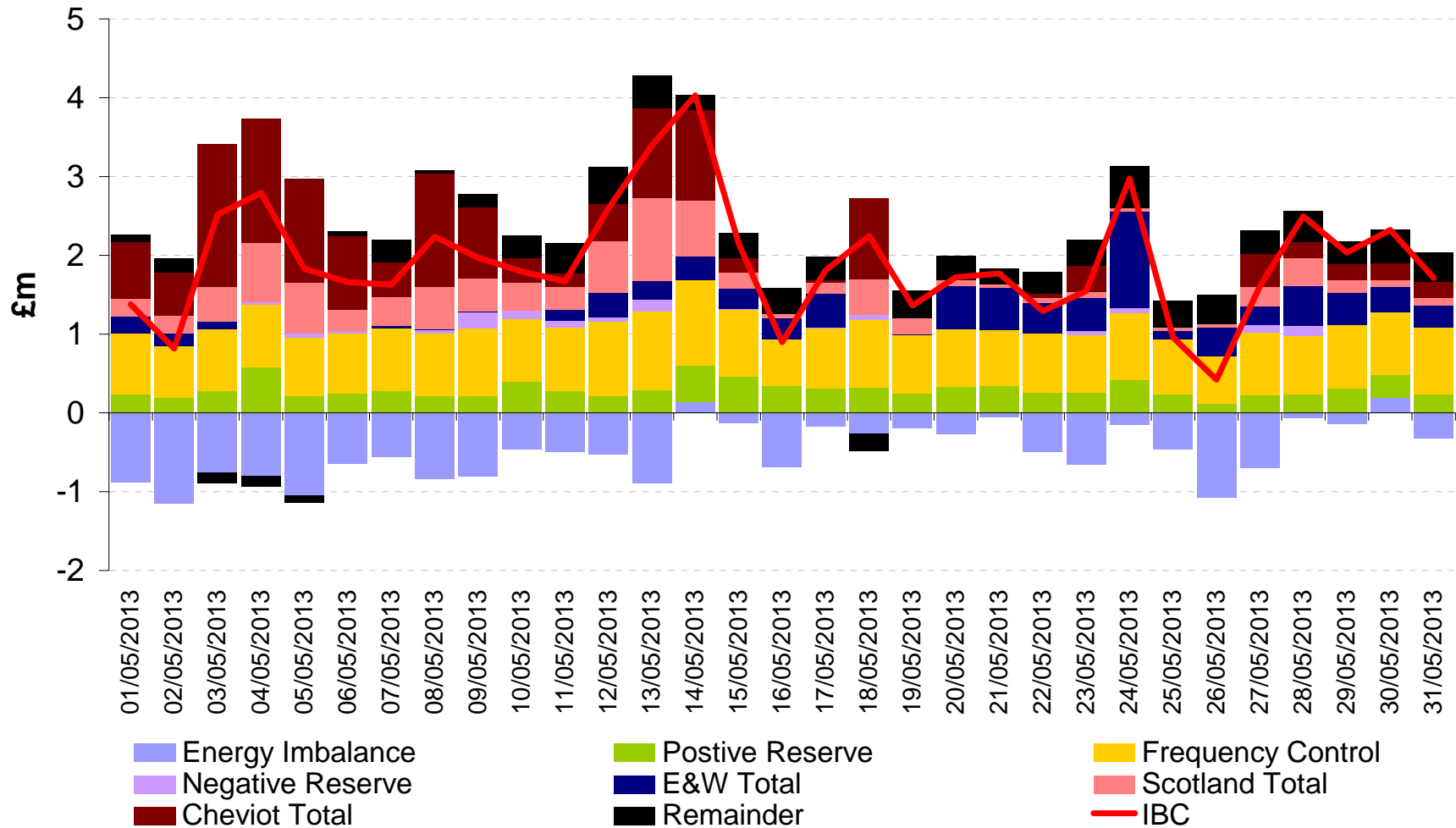
Actual Costs for April 2013

Daily Outturn By Category for Apr 2013

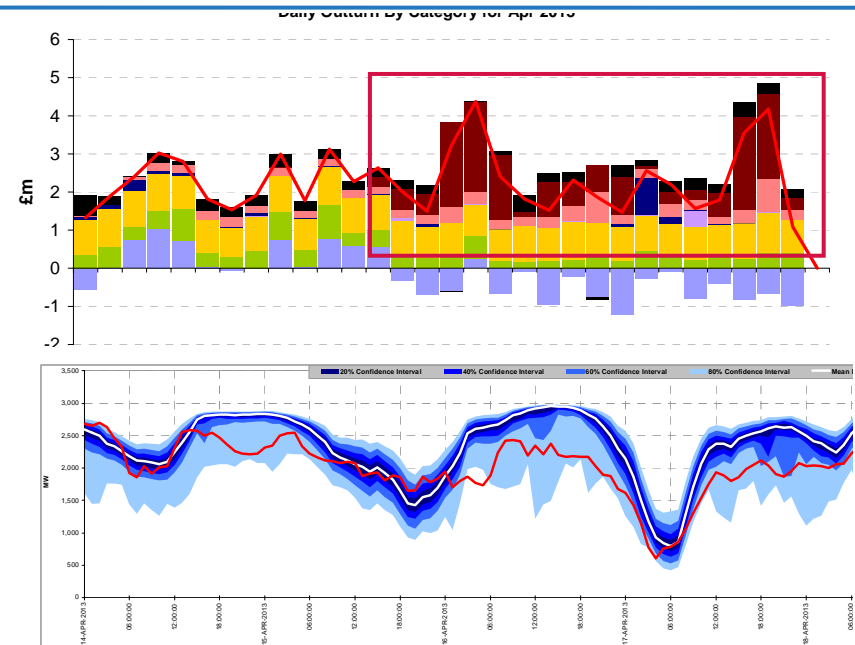
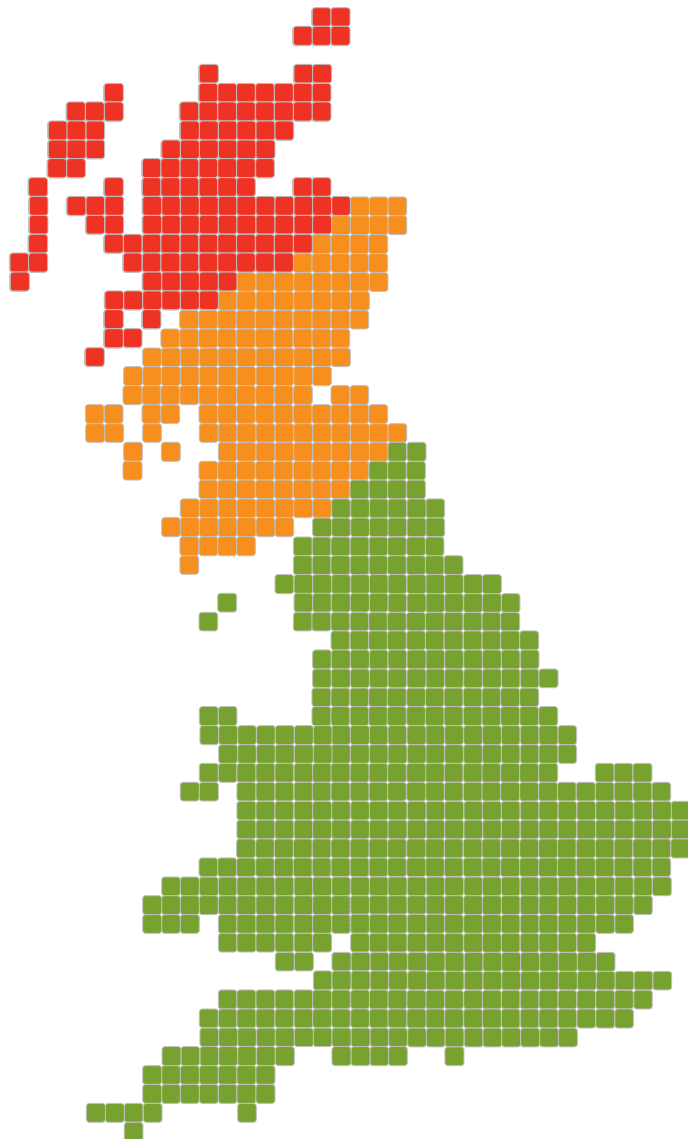


Actual Costs for May 2013

Daily Outturn By Category for May 2013

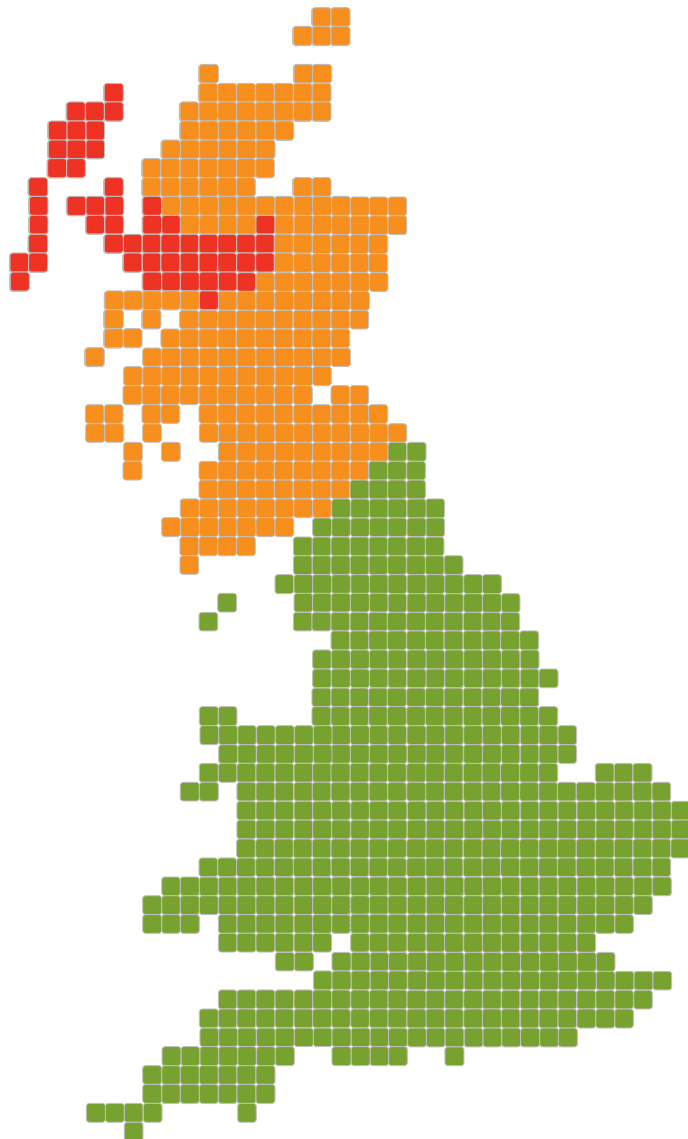


April - Constraints – Cheviot & NW Scotland



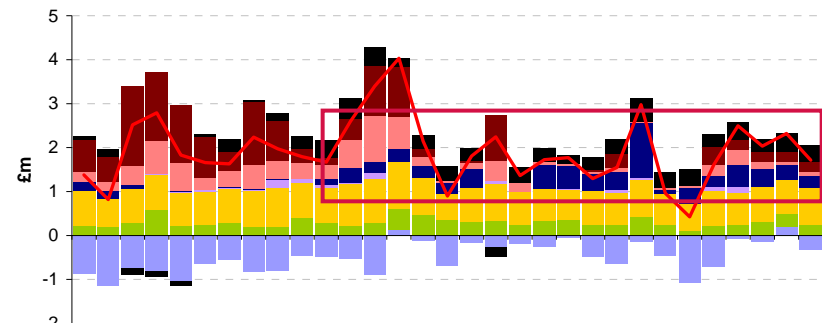
- High Wind period at the end of April resulted in Scottish Bids to manage
- Re-enforcement works across Scottish-England Boundary
- Northern Beauly – Denny works requiring actions in NW Scotland

Constraints – Beauly – Denny - Fort August



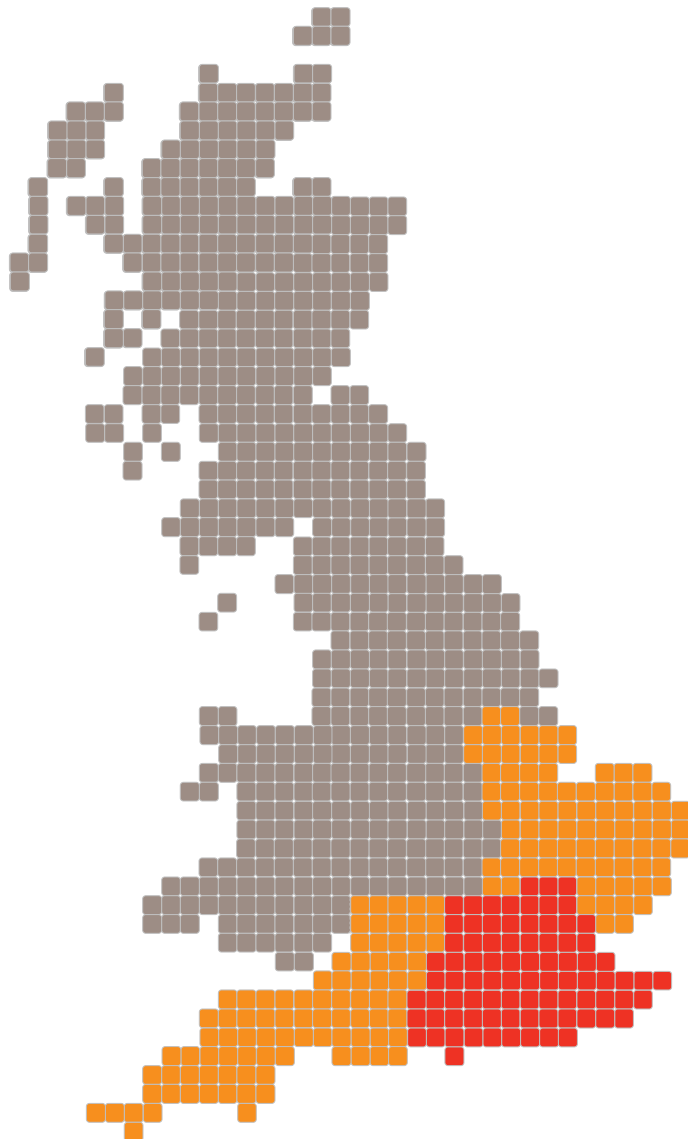
- Fort August works associated with Beauly – Denny have resulted in reduced transmission capacity
- Very few options to manage – Wind and Water
- Emergency Instruction issued to Ben Aketil wind farm on 22nd April
- Developing a process of Hydro Management with SSE

May – Constraints – South Wales



- Move from Spring to Summer Ratings have increased the effect of cable replacement in South Wales
- Works now extended and tender in process to secure further options

May – Constraints – Voltage



- During May the demands have reduced as expected
- Voltage issues arose again as forecast across the south east primarily
- Two contracts in place to manage the issue currently
- Tender currently out for contracts until the end of the summer

April/May – Energy Imbalance

- Frequency Response – Tenders Accepted
- April -£4.8m costs incurred due to primarily long market
- May -£15.4m costs incurred due to continuing trend of long market

Question?

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BSUoS Forecast Update



Jo Faulkner
Commercial Optimisation Manager

BSUoS 2013-14

- Forecast External BSUoS costs approximately: £845m
- Forecast Total BSUoS costs approximately: £950m
- Forecast Total Charging Volume: 634.6TWh
- Estimated BSUoS Charge:
 - Forecast Range £1.27 to £1.72
 - Central Case £1.50/MWh

Income Adjusting Events 2013



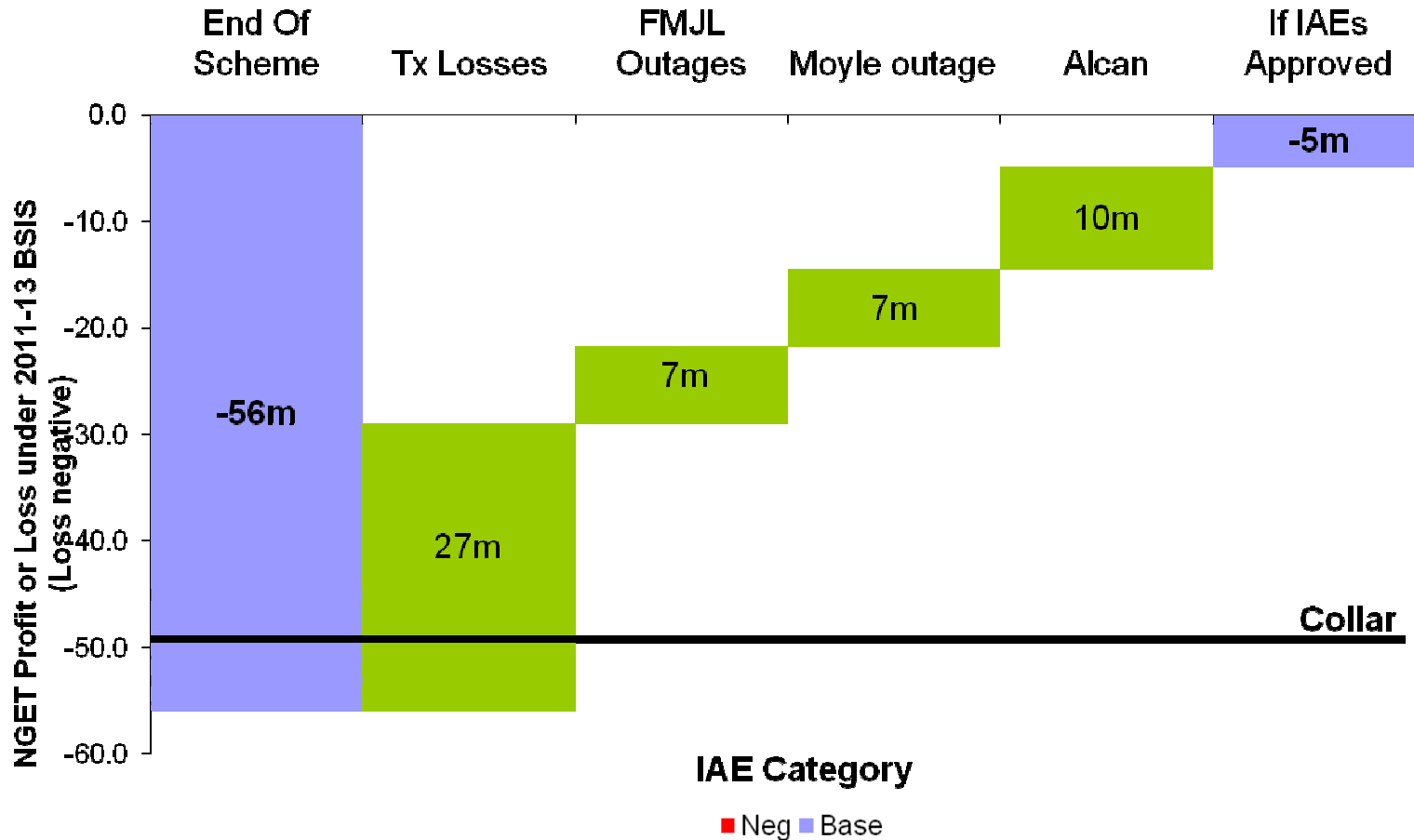
Background

- The licence allows NGET (or other BSC parties) to give notice of an Income Adjusting Event (IAE) to Ofgem:
 - If the materiality of the event is above the threshold trigger of **£2m**;
 - If the event meets the criteria set out in **licence** (e.g. force majeure or if Ofgem deem it as such);
 - Up to **3 months** following the expiry date of the scheme (end of June 2013 for 2011-13 scheme).
- Following submission of IAE to Ofgem, it will consult with industry
- The Authority should determine on the outcome by end of **September 2013**

IAE Submissions and Cost Impact

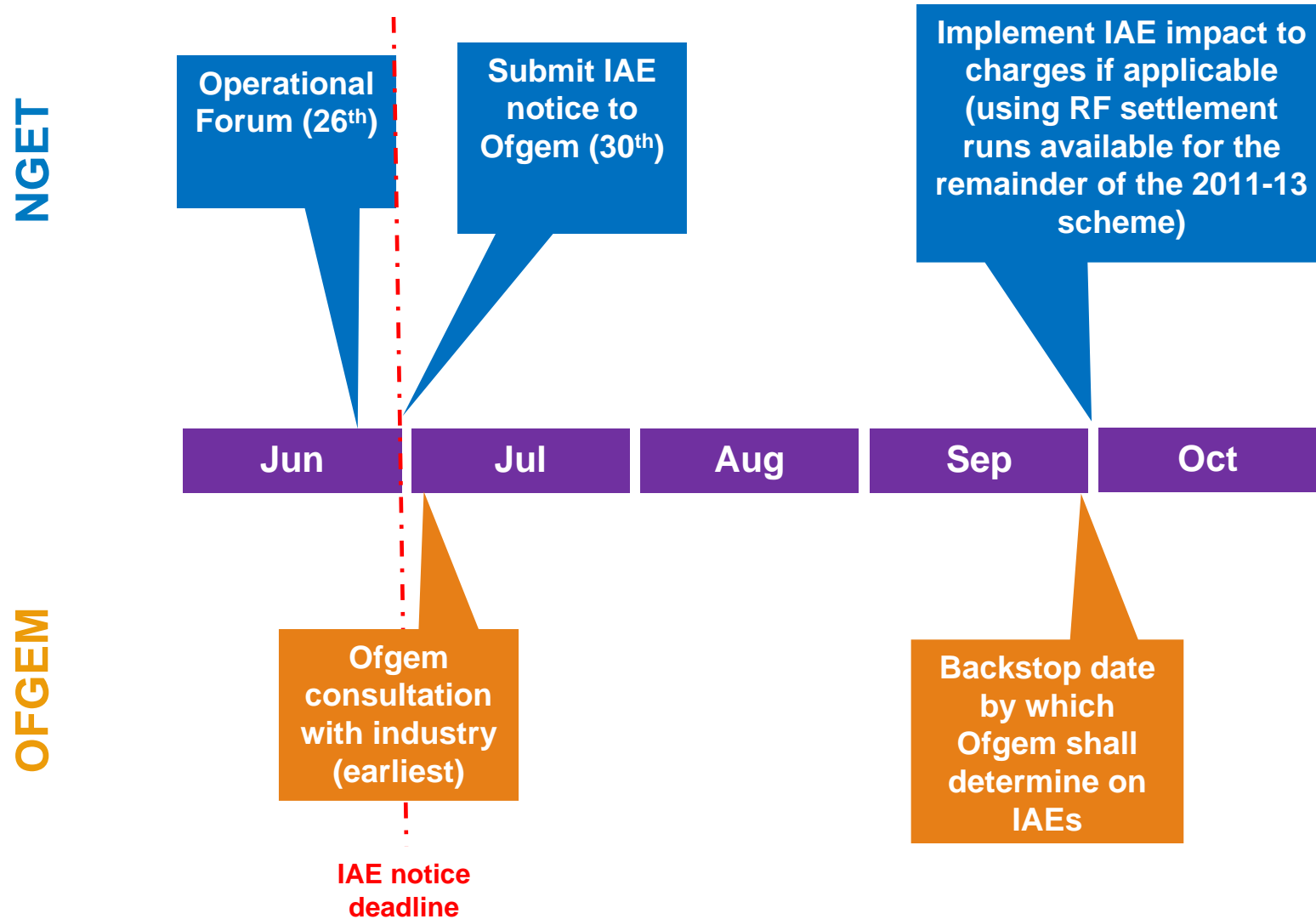
Event	Description	Cost Impact	Revenue Impact
Transmission Losses	Increased north-south energy transfers due to swing from gas to coal, increased wind generation and delays to commissioning plant	£107.9m	£21m
FMJL Replacement	Unforeseen and subsequently extended outages to replace assets with safety exclusion zones	£28.9m	£7.2m
Closure of Alcan	Large reserve/response provider closed during scheme which was unforeseen and resulted in more expensive actions being taken	£38.3m	£9.6m
Moyle Outage	Fault of Moyle I/C in 2011/12 resulted in higher Scottish constraint costs by effectively lowering demand in Scotland	£29.2m	£7.3m

Potential impact to BSIS & BSUoS outturn



- These IAEs, if approved, would equate to a **4p/MWh** increase to BSUoS charges over the two year scheme period i.e. from £1.44/MWh to £1.48/MWh average

IAE Timeline



Question?

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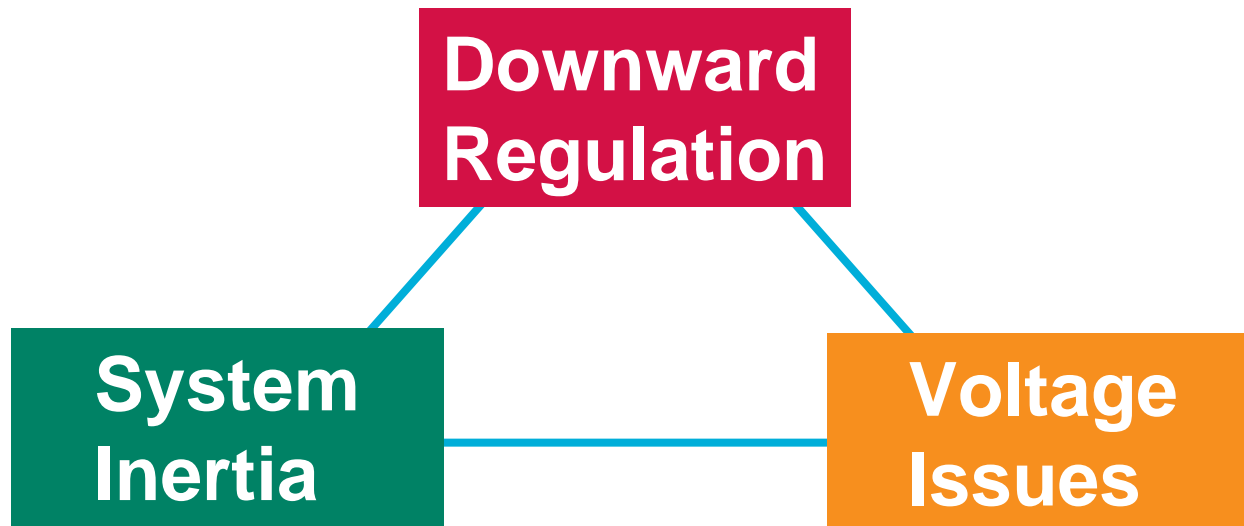


Voltage Management & Inertia Requirement



Matt Magill
Commercial Strategy Manager

Commercial Assessment



- Issues are all most prevalent overnight under high wind/import conditions
- System must be optimised to all three issues concurrently
- Internal tool has been developed which forecasts volumes and costs related to the optimisation of all three issues

Downward Regulation, Inertia and Volts interaction

	Local or System Issue	Resolving Actions
Downward Regulation	System	Less inflexible machines
System Inertia	System	More rotating mass
Voltage	Local	Machines with MVAR capability in local areas

First Tender

- Targeted
 - Voltage Only
 - Inertia Only
 - Combined Voltage and Inertia
- 2 contracts agreed
 - Grain - voltage only in the South East
 - Marchwood - voltage support in the South West and also provided a large amount of inertia for a relatively low MW value

Value of Inertia

- Clear inertia requirement to maintain security for a specified largest infeed or offtake loss
- Cost of increasing inertia vs cost of reducing largest infeed or offtake loss is currently biased towards reducing loss due to;
 - Low cost of reducing loss
 - Increased complexity of increasing inertia counter to Downward regulation actions
- There is a floor to reducing loss actions where they become uneconomic in comparison
- Large and complex analysis being undertaken to correctly forecast these points
- There is value in inertia now and more in the future

Second Tender

- Requirements have been redefined
 - Voltage only
 - Inertia only – with no active power
 - Combined Voltage and Inertia – with no minimum active power
- Period from 20th July – 30 September
- Will update at the next forum

Question?

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European Balancing Code Update



Graham Hathaway
Senior Account Manager

Balancing Code

What is it?

- Aims to harmonise of balancing regimes across Europe
- On a TSO to TSO basis
- Standardise roles & responsibilities of all “electricity balancing” stakeholders
- Implement integrated, harmonised, coordinated balancing regimes

What does it contain?

- Covers three main areas:
 - Procurement of balancing reserve and energy, product definition
 - Reservation of interconnector capacity for balancing purposes
 - Imbalance settlement, price, volume, responsibilities

Balancing Code

What stage are we at? What are the issues?

- Proposes creating CoBAs, within which cooperation takes place
- GB participate in “common merit order” for balancing products
- GB has several TSOS – applicability of code?
- Impact assessment being undertaken

What's the plan?

- 17th June 13 Public consultation starts
- Sept 13 Analysis of responses and updated code issued
- Nov 13 Final draft code
- Dec 13 Code submitted to ACER, Comitology starts

Any Questions?

Options to get involved

- Respond to the consultation at <https://www.entsoe.eu/>
- Attend the JESG @ Elexon on 19th June 2013.
- Attend the 3rd Stakeholder workshop in Brussels in October 2013, details at <https://www.entsoe.eu/>
- Contact me directly: graham.hathaway@nationalgrid.com

Question?

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SO Incentives 2013-15



Iain McIntosh

Electricity Incentives Development Manager

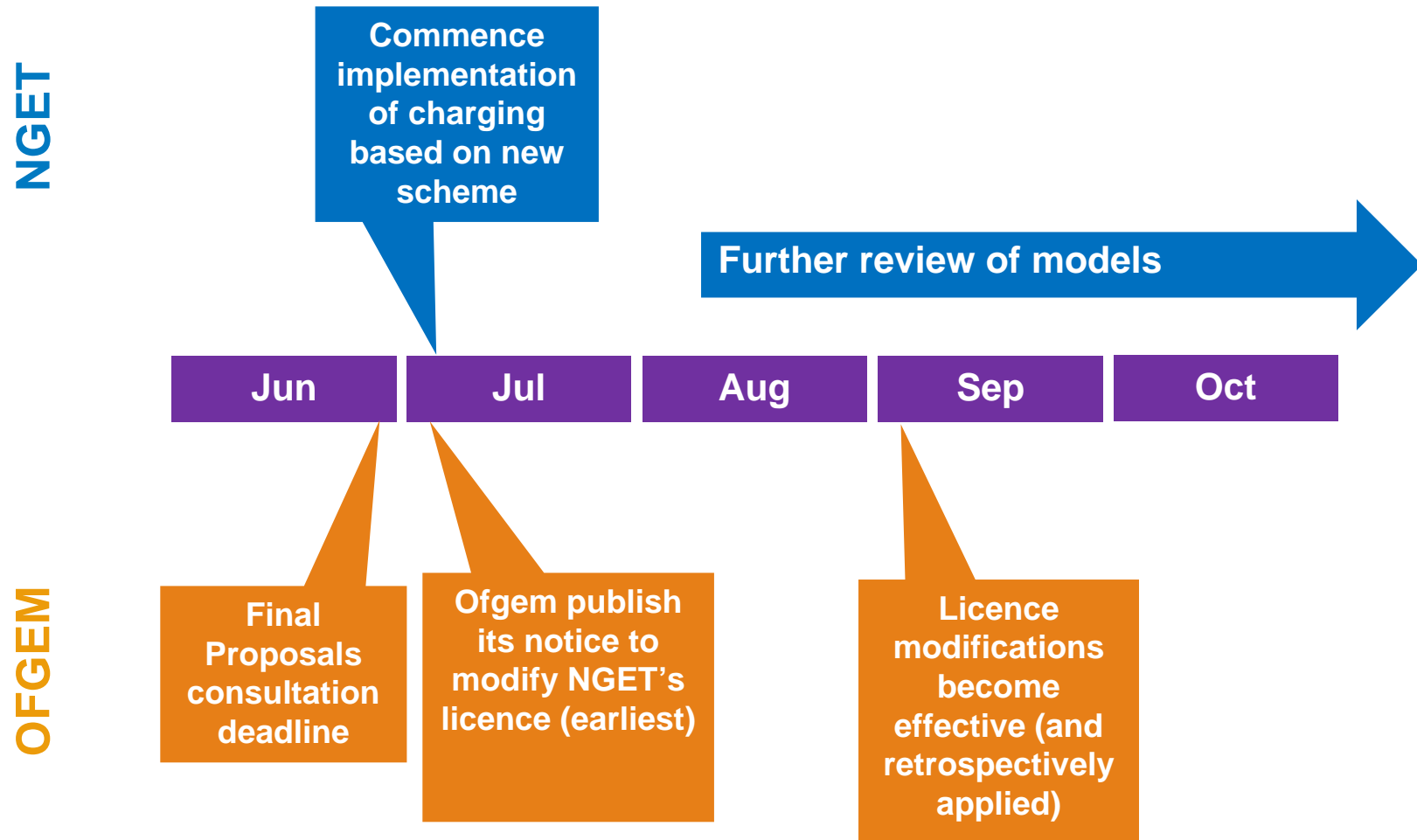
Agenda

- Overview of Ofgem's Final Proposals – published 31st May
 - Balancing Services Incentive Scheme (BSIS)
 - Wind Generation Forecasting scheme
 - New SO Innovation Roll-out Mechanism
- Incentives implementation timeline
- Next steps

Ofgem's Final Proposals - Overview

Scheme	Ofgem Proposals
Balancing Services Incentive Scheme (BSIS)	<ul style="list-style-type: none"> • 2 (x1) year scheme, (2013-15) • Cap/collar of £25m per annum, 25% sharing factor • Modelled targets for constraints and energy • Retrospective application from 1st April 2013 • Income Adjusting Event provision retained (£10m threshold)
Black Start	<ul style="list-style-type: none"> • Ex-ante cost targets proposed for each year • Mechanisms for NGET to apply for an increased cost target for year 2 at the mid point
Renewable Generation Forecasting	<ul style="list-style-type: none"> • A new 2 year financial incentive on day ahead wind forecasting error (seasonal targets) • Cap/collar of £250k per month – cap at 0% error and collar at 2 times target
SO Innovation Roll-out mechanism	<ul style="list-style-type: none"> • Funding available for 2014/15 for up to three innovation projects • Fund of up to £10m

Incentives Timeline



Question?

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What would you like to see at future forums?



E-mail – commercial.operation@nationalgrid.com

Alan Smart – Energy Operations Manager

Goodbye from all of us!

national**grid**

