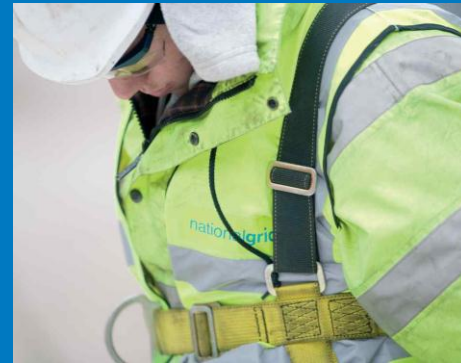


# Commercial Balancing Services Group



3<sup>rd</sup> December 2014

Chair: Mike Edgar

# Introductions and welcome

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- Introductions
- Admin
  - Fire alarm
  - Lunch
- Agree minutes of last meeting
- Review of previous actions

# Agenda

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- Prioritisation of Development Areas
- STOR Runway
- FFR Developments
- Update on future developments
  - Power Available
  - CMP237 “REP for Low Fuel Cost Generation”
  - SBR/DSBR
  - Anglo-Scots Intertrip
  - Strategic Demand Side Review Project
- AOB

# Prioritisation of Development Areas



Adam Sims

## Prioritisation of Development Areas

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- List of areas included in the Terms of Reference
- Request attendees provide some feedback on:
  - A) Which areas would you like to see development in and what?
  - B) What priority would you give development of each area?
- Please fill in the forms on the desk or email [adam.sims@nationalgrid.com](mailto:adam.sims@nationalgrid.com)

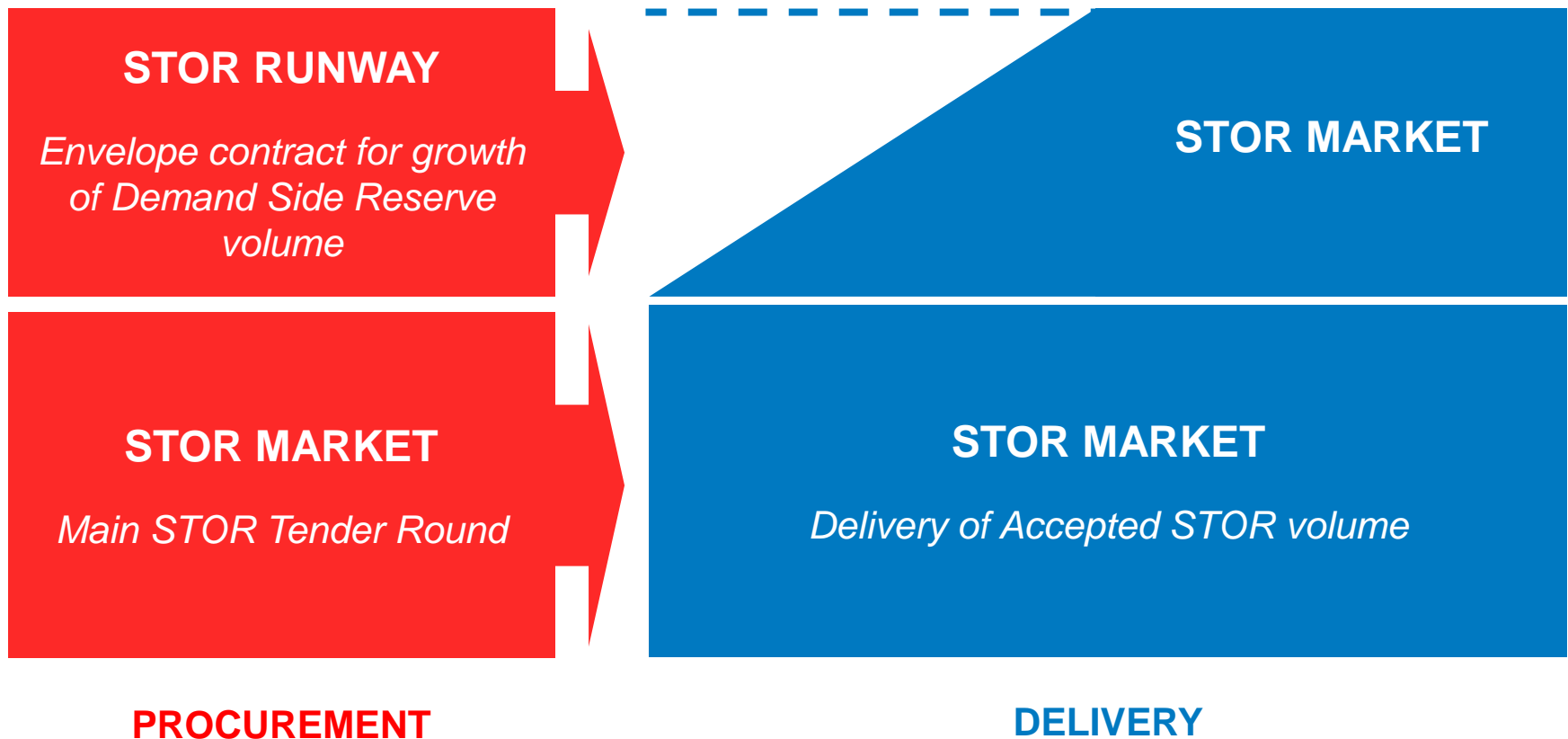
# STOR Runway



Paul Lowbridge

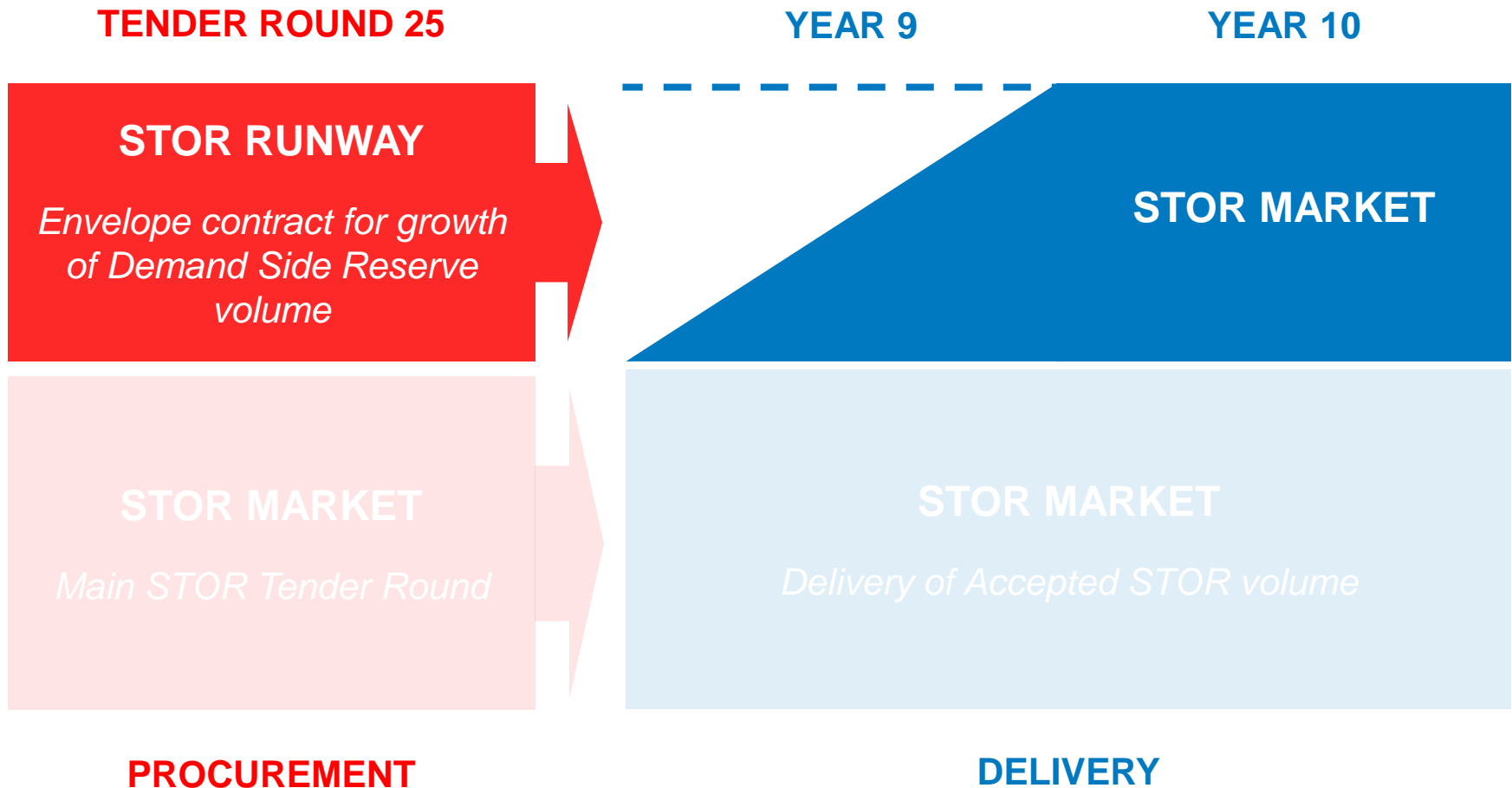
# Introduction

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# Introduction

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# Drivers for STOR Runway

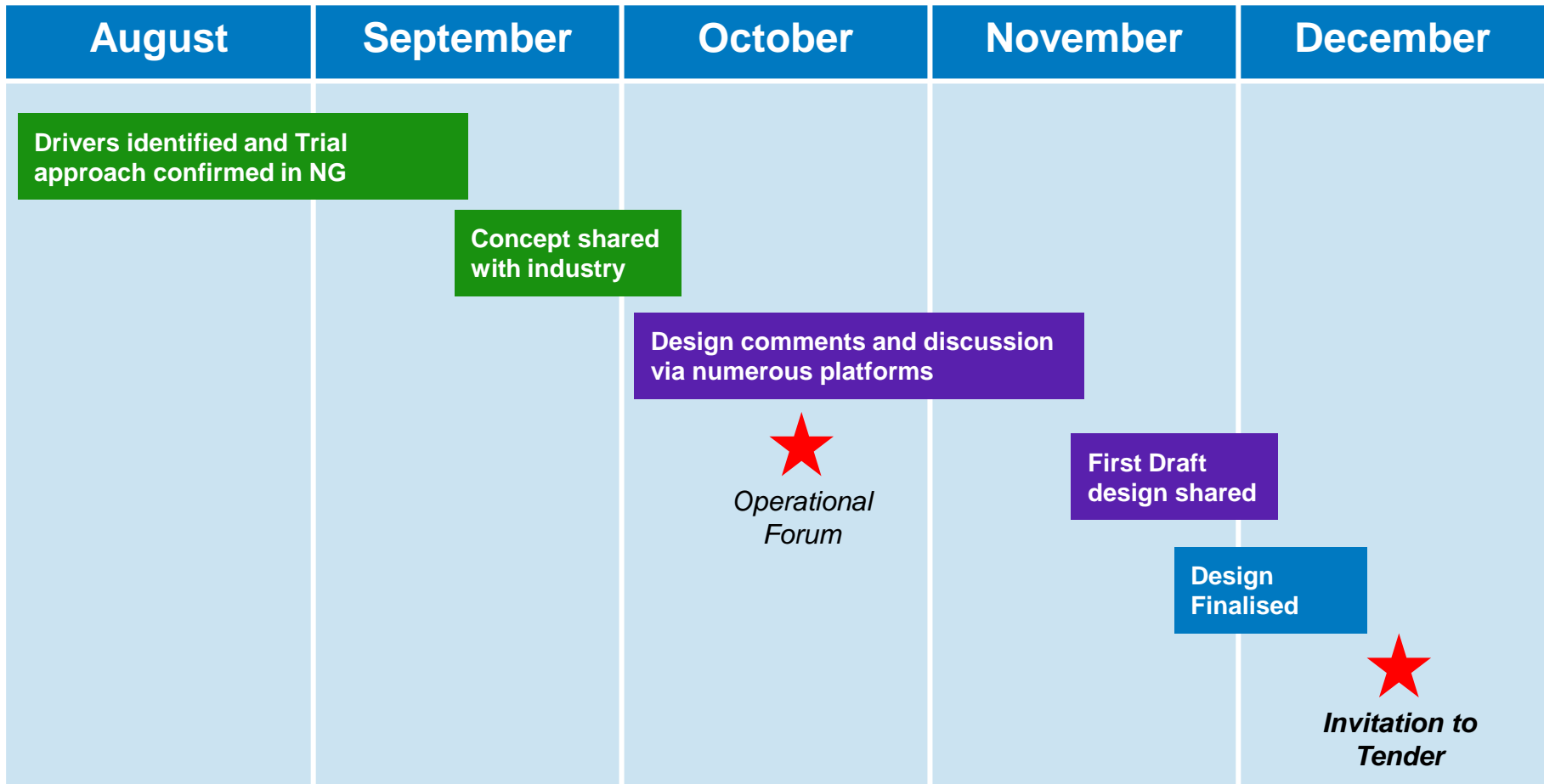
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**1** Barriers to Growth in STOR market

**2** Demand-Side volume: bridging a gap

**3** Future STOR competitiveness

# Collaborative Design Process



# Contact Us

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## Website

<http://www2.nationalgrid.com/UK/Services/Balancing-services/Reserve-services/Short-Term-Operating-Reserve/STOR-Runway/>

## LinkedIn

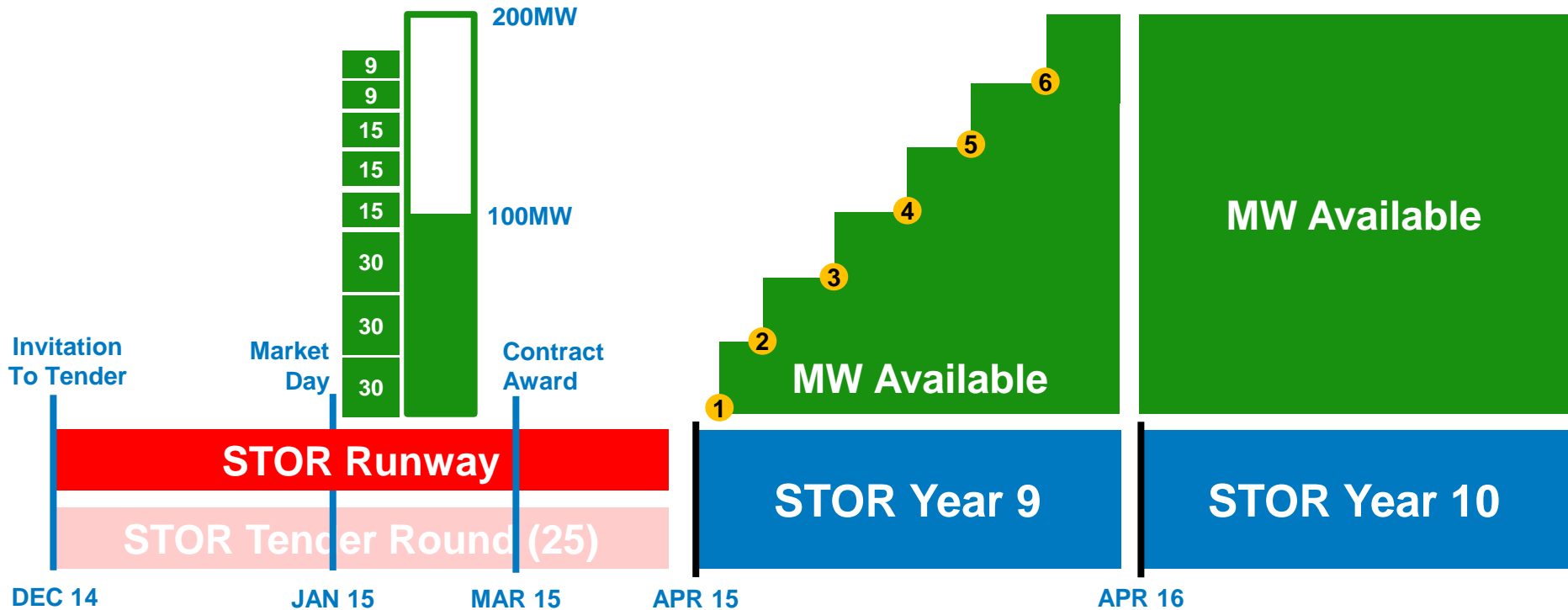
**“STOR Runway (National Grid)”**

## Email

[Paul.Lowbridge@nationalgrid.com](mailto:Paul.Lowbridge@nationalgrid.com)

## Additional Information

# STOR Runway: Concept Diagram



## Key Dates

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**5<sup>th</sup> December 2014**

**Final design comments ahead of ITT**

**12<sup>th</sup> December 2014**

**Invitation to Tender Published: Tender Open**

**16<sup>th</sup> January 2015**

**Market Day: Tender Closes**

**6<sup>th</sup> March 2015**

**Tender Results & Contract Awards**

**16<sup>th</sup> March 2015**

**Notifications for Growth Gate 1**

**4<sup>th</sup> May 2015**

**Growth Gate 1 live**

## FFR Developments



Adam Sims / Gareth Jenkins

## FFR Developments

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- Move to e-tendering platform for February tender
  - Market Day 2<sup>nd</sup> February
- Similar format to STOR e-tender
- Will still be able to use paper tenders initially, although the intention is to phase these out
- Link to Ariba web portal will be added to FFR website and communicated in January FFR Market Report

## FFR Developments

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- Interest received from non-BM aggregators to enter FFR market, however minimum of 10MW is a barrier
- We are therefore developing a fixed-term bilateral growth contract with an agreed price to facilitate entry into FFR market
  - Duration for 1 year or when 10MW achieved
  - Minimum of 1MW required to sign up
  - Separate services available: P/S/H, static/dynamic, day/night
  - Fixed price
- Aim to publish more information in December

## FFR Developments

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- Currently, tenders have to be for bundled products, i.e. Primary & High or Primary, Secondary & High
- Anecdotal evidence that there are parties who can only provide individual products
- Would splitting out Primary, Secondary and High increase liquidity in the FFR market?
- Intention to investigate this once the e-tendering platform is established

## FFR Developments

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- Rapid Frequency Response (<5 second response)
- Presented to GCRP 19 November
- Updated analysis of 2020/21 indicates a benefit from RFR on 60% of summer days and 24% of winter nights
- However, no consensus as to whether this should be a mandatory service
  - Proposal to raise a new GC workgroup in April (GC0087)
- Therefore National Grid will look to develop a commercial service in the new year
  - RFR analysis now focused on technical requirements, testing process and tender assessment

## Market Information Reports

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- Produced every month for a range of services to assist service providers
- Aim: To give service providers the right information in a clear concise manner so that they may tender for services confident that they know what National Grid value and can offer a competitive price accordingly
- We want to improve them for the customer

## Your opinion is important!

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- Do you use the Market Information Reports? If you don't, why not?
- How do you use them?
- Which parts of the report are most useful/least useful?
- When would be the most helpful/convenient time to publish the reports?
- Are these reports clear and relevant?
- Any other feedback on what you would like to see in the reports?

## Update: Power Available GC0063



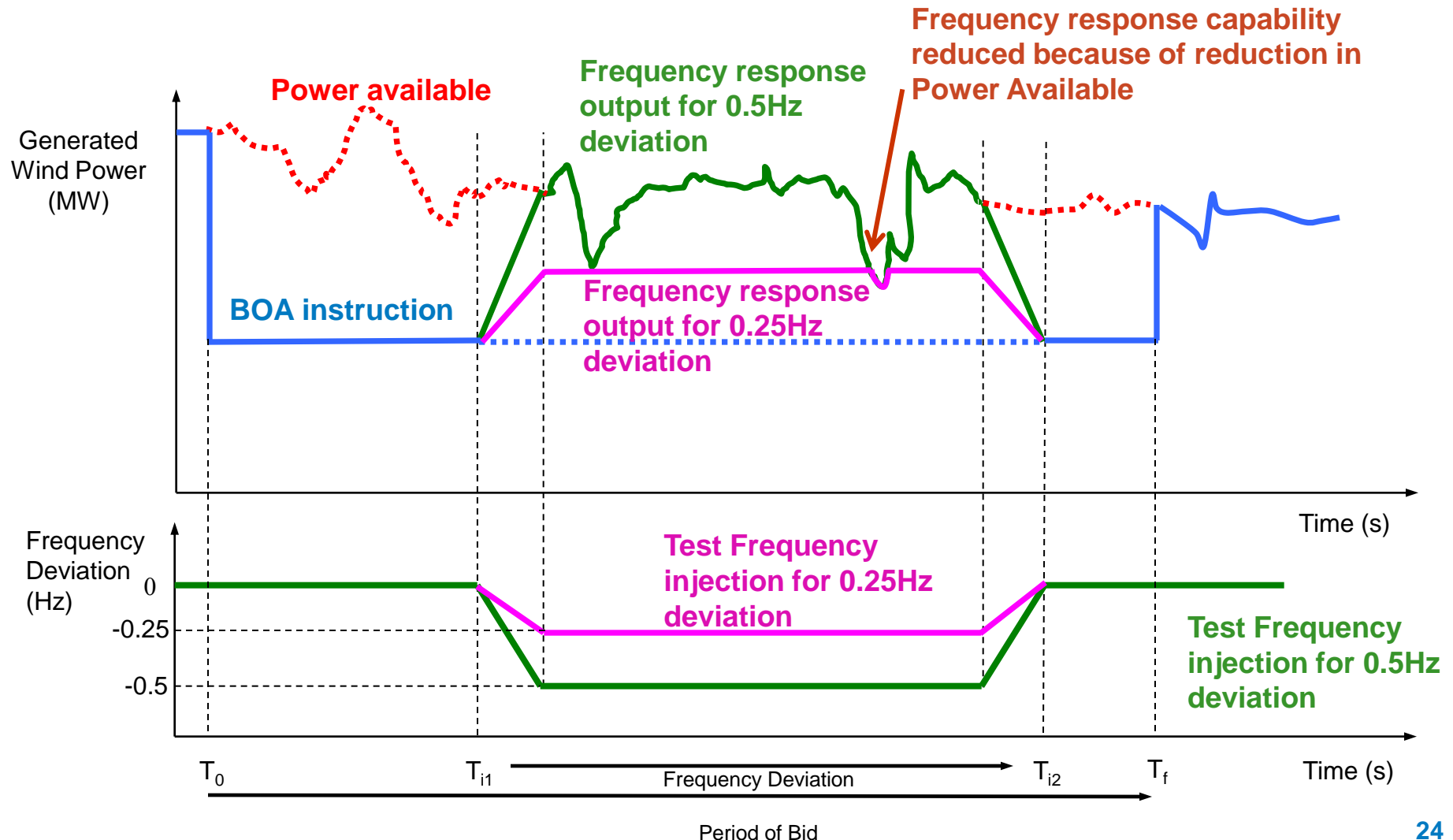
Adam Sims

## Background

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- By 2020, for significant periods of time **very little** conventional flexible generation is forecast to be running
  - Faster adoption of renewables will bring these timescales forwards
- Alternative sources of ancillary services **must** be secured
- It will be more likely that wind will be the marginal plant, and hence the most economic provider of balancing services

# Low Frequency Response from a Wind Farm - during test using Power Available



## Power Available Signal

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Calculate a signal representing the instantaneous sum of the potential Active Power available

- **Option 1 ( Standardisation of MEL)**

Standardisation of MEL which would require MEL submissions that would be expected to vary with forecast intermittent energy source, where the update frequency was a variable to be determined by the User

- **Option 2 (Dynamic MEL)**

Dynamic MEL (Power Available signal used to calculate MEL), with an update frequency of [10 minutes];

- **Option 3 (SCADA)**

Power Available Data via SCADA i.e. the submission of Power Available as an operational metering signal which would be fed to the National Grid Control Centre via SCADA with the redefinition of MEL used to indicate electrically connected capacity.

## Conclusions

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- Option 3 is still the preferred way forward:
  - Option 1 does not give consistent improvement
  - Option 2 is more complex/costly for existing generators
  - 'Do nothing' is not an option – defect has been well defined
- This will apply to new intermittent generators from April 2016 onwards
- Trialling not included – did not appear to be an appetite for this and in effect already proven
- May facilitate a future BSC modification if considered necessary (eg in the light of cashout review) – to settle BOAs against Power Available rather than FPNs

## Next Steps

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- Revised report circulated to workgroup and GCRP
- Workgroup were asked two questions:
  - Should we reconsult? No, sufficient engagement has taken place and the conclusion has not changed
  - Does the outcome need to be presented to GCRP again? Yes, since it addresses the points raised at GCRP in May
- Next steps:
  - Submit report to authority
  - Consider lessons learned for a subsequent GCRP

## Update: SBR/DSBR



Adam Sims

## DSBR & SBR

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### Winter 14/15

- Agreed 14/15 contracts result in 1.1GW of “additional” de-rated capacity across both DSBR and SBR
- 14/15 contracts now active and being proactively tested

### Winter 15/16

- 1<sup>st</sup> 15/16 tender in progress. We have tendered for 50% (900MW) of the 1,800MW requirement identified in June 2014.
- Open to DSBR and SBR in parallel – closes Friday 5<sup>th</sup> December 2014
- Aiming to announce conditional results prior to the CM auction opens on 16<sup>th</sup> December
- Second tender scheduled for Spring 2015
- Third tender round in the summer/autumn if required

# Update: CMP237 Response Energy Payment



Adam Sims

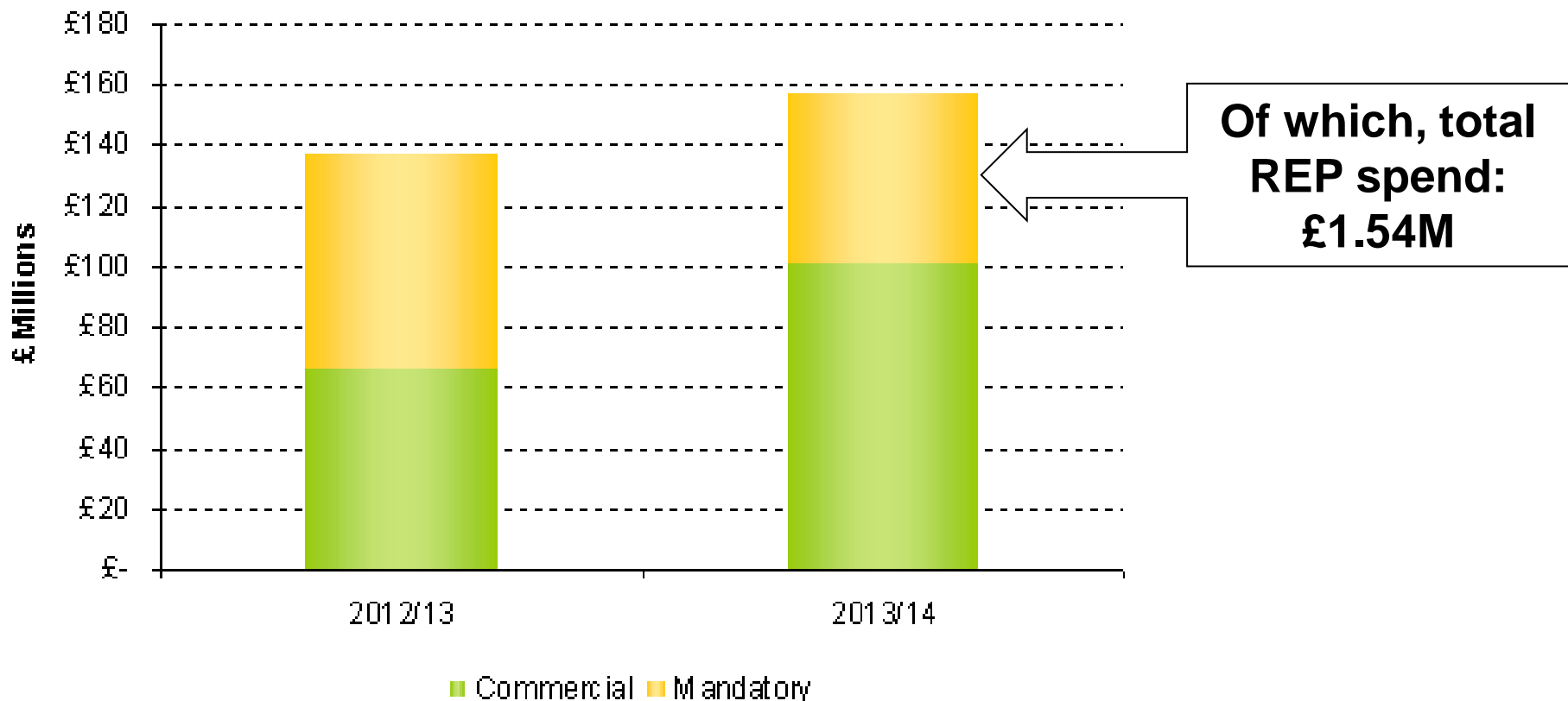
## Response Energy Payment

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- Concerns with some wind generators pricing themselves out of the response market
- One reason given is the calculation of the REP, which is supposed to reflect the cost of providing the energy
- REP is predicated on conventional generation, i.e. where a fuel is consumed at a cost
  - For an increase in output, generator receives  $MIP * 1.25$
  - For a decrease in output, generator pays  $MIP * 0.75$
- For low fuel cost plant (e.g. wind) the REP calculation is not cost reflective

# Annual Spend on Response

Total Response Holding Costs (Commercial/ Mandatory)

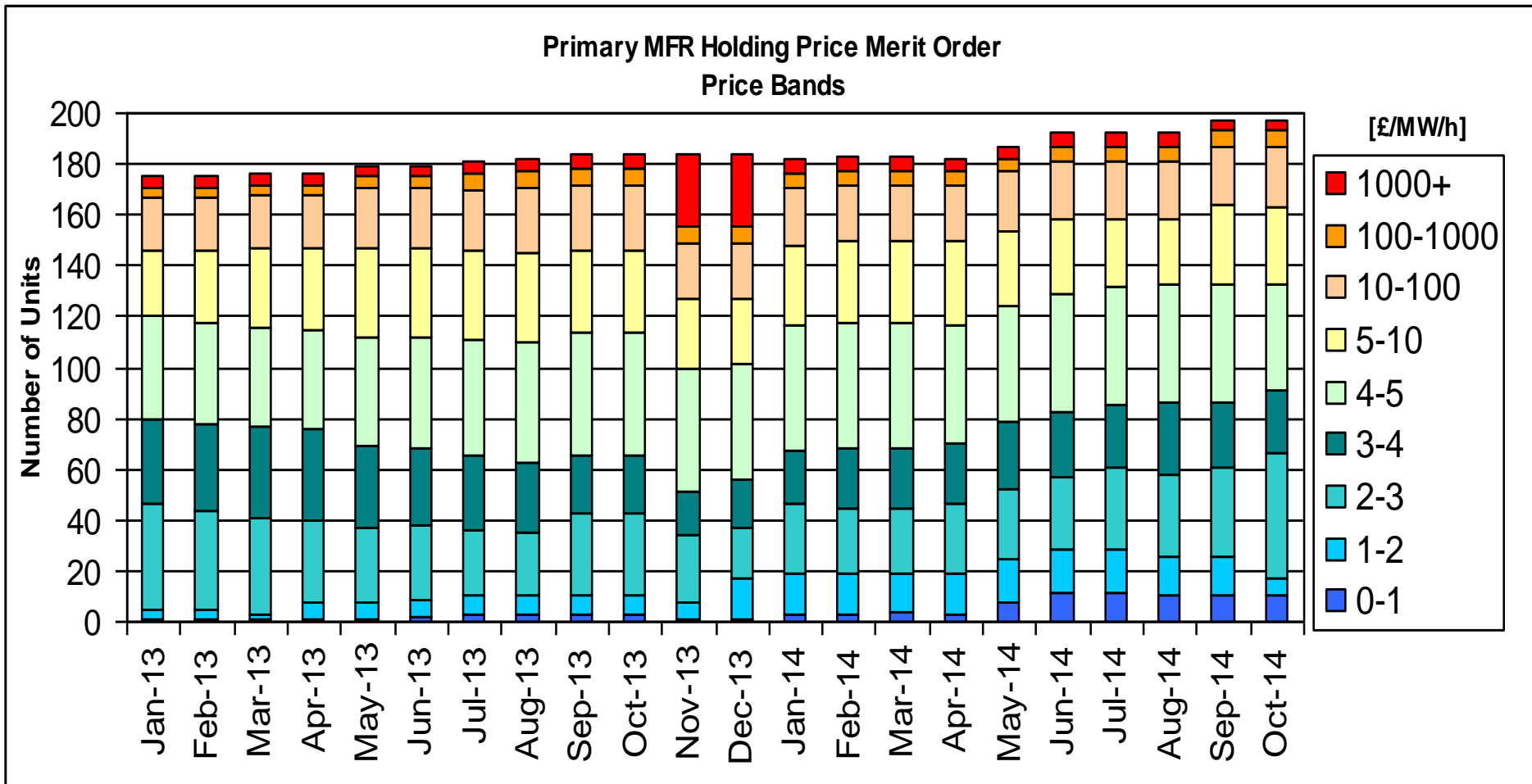


## Why is this a Problem?

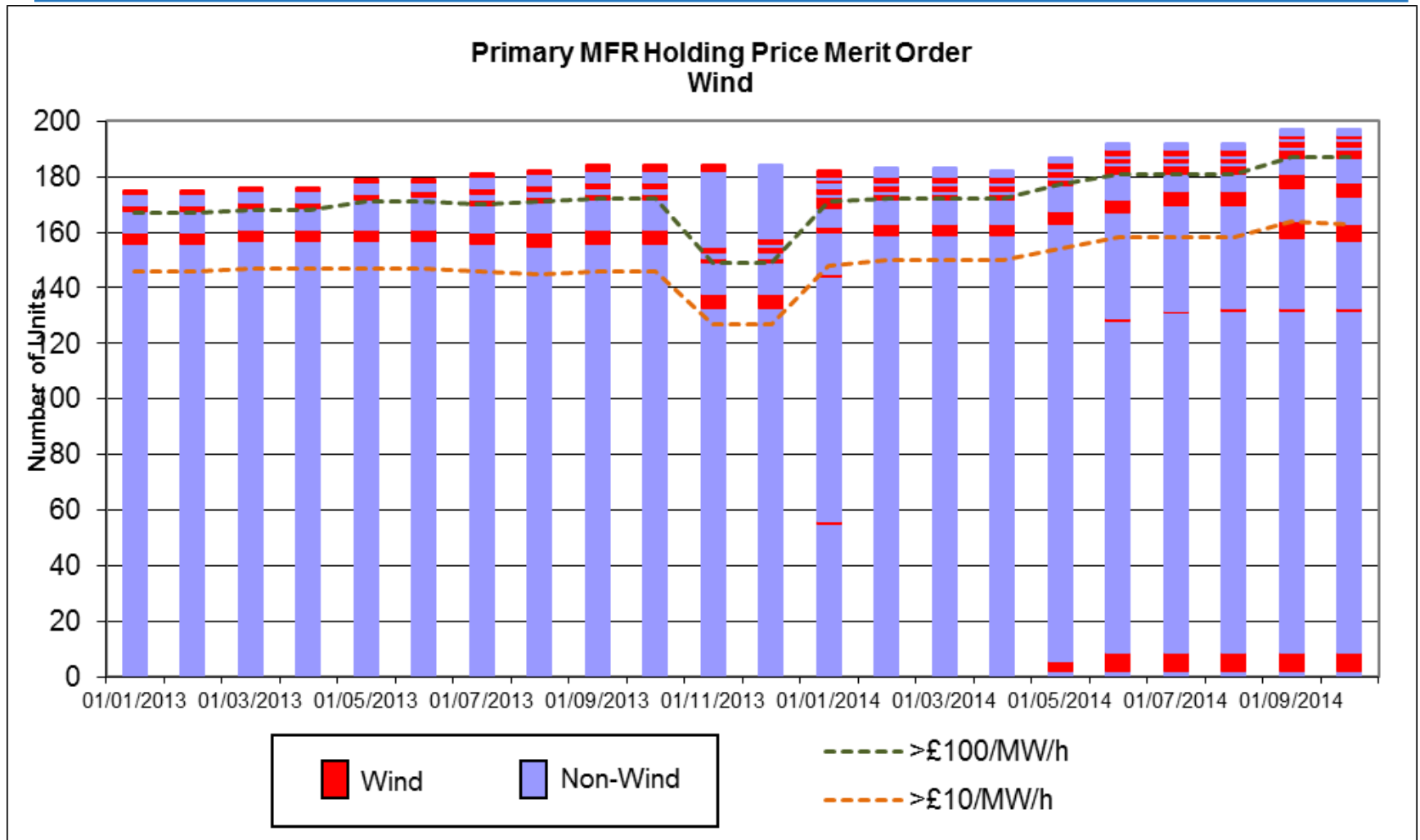
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- The REP does not reflect the costs experienced by these generators in providing frequency response
- This is deterring participation in the response market by members of a sizeable and growing market segment
- Lack of liquidity in the market will result in increased balancing costs
- Some wind generators are pricing themselves out of the market entirely

# Submitted Holding Price Bands (Primary)



# Submitted Holding Price Bands (Primary)



## Proposed Change

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- For plant with no fuel cost, the REP is settled at £0/MWh
- No change to plant with a fuel cost

# What plant should be included?

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Fuel Cost	No Fuel Cost
Gas	Onshore Wind
Coal	Offshore Wind
Oil	Solar
Nuclear	Tidal
Biomass	Wave
Electricity Storage (e.g. pumped storage, batteries)	Hydro

## Workgroup Options

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- Original: Remove REP from wind, solar, wave and hydro
- Option 1: Remove REP from wind, solar, wave
- Option 2: Remove REP from wind, solar, wave and hydro, but allow them a choice to opt-in
- Option 3: Remove REP from wind, solar, wave, but allow them a choice to opt-in
- Further question for Options 2 & 3 as to when the opt-in would be allowed

## Next Steps

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- Workgroup consultation is due to be published **8<sup>th</sup> December** for four weeks
- Deadline for responses **5<sup>th</sup> January**
- Aim is to return to the CUSC Panel in February
- Anticipated Ofgem determination April/May

## Update: Commercial Intertrips



Adam Sims

# Commercial Intertrips

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## Commercial Intertrip Requirement

- SPT and SHETL have been asked to commence work on the infrastructure for the scheme on Whitlee, Backlaw, Griffin and Crystal Rigg.
- Further consideration being given to include Fallago Rigg in this scheme
- First delivery expected April 2015
- Contractual discussions underway with the abovementioned generators

## Windfarms Connecting into Heysham

- Discussions still ongoing with a number of wind farms connecting into Heysham to utilise the existing intertripping scheme outside of cap 76 conditions under a commercial framework.

# Update: Strategic Demand Side Review



Adam Sims

## Strategic Demand Side Review Project

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- There are limited fully integrated information systems to contract, optimise, despatch and settle Non-BM (DSR)
  - FCDM & SRD: rigid capability / functionally
- National Grid are considering the existing and future IS options to innovate and increase DSR balancing service contracting
  - Flexible, within day and day ahead, variable parameters
- Feasibility study has been completed, design stage will be completed by summer 2015

## Future CBSG Meetings



Chrissie Brown

## Next CBSG Meeting

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- First week of March (2<sup>nd</sup> – 6<sup>th</sup>)
- If you would like to raise a topic for discussion, please contact [adam.sims@nationalgrid.com](mailto:adam.sims@nationalgrid.com) or [christine.brown1@nationalgrid.com](mailto:christine.brown1@nationalgrid.com)
- Please remember to feed back your development priority areas!

# AOB

