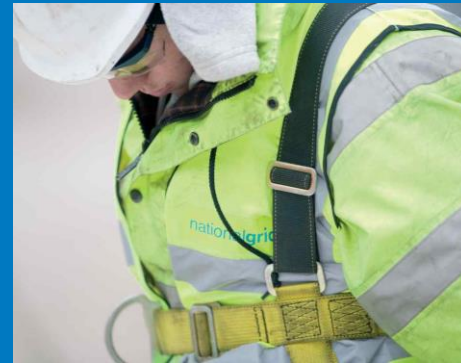


Capacity Market Operational Coordination Event



15 April 2015

Agenda

Session	Timings
Welcome and Introductions	9.30
Operational Plan Update	9.40
License Compliance Update	9.45
Break	10.30
IS Update	11.15
Ofgem Q&A	11.35
Lunch	12.15
Registration	13.30
Prequalification	14.00
Break	14.30
Auction	15.00

Welcome

- Safety
- Introductions
- Questions
- Stands and Guidance
 - Agreement Management
 - TEC Deferral
 - Connection Agreement Deferral
 - 6 Monthly Progress Reports
 - Meeting the Financial Commitment Milestone
 - DSR Test
 - EMR Portal Demonstration

Operational Plan Update

James Greenhalgh

Milestones Achieved

T-4 ref	TA ref	Deliverable	Scope	Date requirement from CM Rules/Regs	T-4 Auction	DSR Transitional Auction	Dependencies	Owner
1		Amended Electricity Capacity Regulations & DECC CM Rule changes in force	Amended CM Regulations changes (Interconnectors, metering, settlement) and DECC CM Rules changes to come into force		March 2015	March 2015		DECC

- **Electricity Capacity (Amendment) Regulations 2015 came into force on 24 March**
 - **Enables Interconnector Participation**
- **Draft Capacity Market (Amendment) Rules 2015 published on 27 March**
 - **Final version, including consolidated set expected prior to the opening of Prequalification**
- **Further Amendments to the Capacity Regulations were laid in Parliament on 16 March**
 - **Amendments expected to be made prior to the opening of Prequalification**

2		Ofgem CM Rule change consultation opens	Consultation opens		April 2015	April 2015	DECC CM rule changes in force	Ofgem
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- **Ofgem CM Rules change Consultation Published on 2 April and closes on 5 May**

Upcoming Milestones

T-4 ref	TA ref	Deliverable	Scope	Date requirement from CM Rules/Regs	T-4 Auction	DSR Transitional Auction	Dependencies	Owner
3		SoS provides Data and assumptions to the Delivery Body	The SoS provides final data and assumptions to the Delivery Body to enable preparation of the Electricity Capacity Report (ECR)	No later than the 22 nd April	Friday 17 th April 2015	n/a		DECC
4		Ofgem CM Rule change consultation closes	Consultation closes		May 2015	May 2015	DECC CM rule changes in force	Ofgem
5		Submit Electricity Capacity Report to SoS	Submit report to SoS including a recommendation on the target volume to procure.	Before the 1 st June	Friday 29 th May 2015	n/a	Input assumptions from DECC.	NG

Licence Compliance

Dianne Burke, UK Ethics and Compliance Manager



15th April 2015

Agenda

- Introduction – my role
- Business Separation - Context
- Organisational Design and Governance
- EMR Licence Requirements
- Practical Example – employee moves
- Control Framework
- Questions

My Role – UK Ethics and Compliance Manager

■ Assurance:

- National Grid Compliance Procedure(Corporate Governance)
 - Effective Control Framework
 - Monitoring/reporting/action plans
- Business Separation Compliance
 - Business Separation Compliance Officer (Licence)

■ Ethics:

- Education and awareness programmes
- Compliance Culture: “Always doing the Right Thing”

■ Reporting lines to:

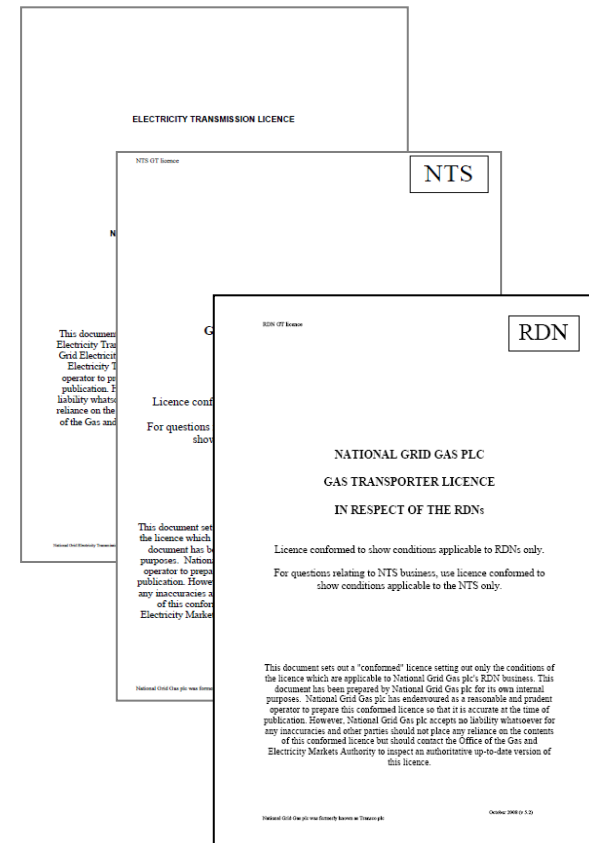
- Group General Counsel and Company Secretary
- Boards
- Audit Committees
- Business Separation Compliance Committees
- Executive Committees



I am independent.
Strong links with National Grid’s Audit, Risk, Regulation and Legal functions

Context : Regulatory Framework

- Strong Regulatory Framework
 - Gas/Electricity Acts
 - Competition Act
 - Utilities Act
 - Licences
- Key Themes
 - Fair competition
 - Protection of information
 - Financial ringfence
 - Overarching obligation not to give or receive an unfair advantage



Compliance with regulatory requirements is at the heart of National Grid's operations

Context: Business Separation Requirements

- Separation between:
 - Gas Distribution and Metering
 - Gas Transmission and Gas Distribution
 - Electricity Transmission and Related Offshore, Interconnector and Carbon Capture and Storage Interests.
 - EMR
 - [ITPR – current consultation]
- Various Licence requirements for legal, financial, managerial, operational, physical and information separation
- Compliance Statements
- Business Separation Compliance Officer Role
- Business Separation Compliance Committees
- Annual compliance reporting to Ofgem



Business separation requirements are hardwired into National Grid's organisational design and corporate governance structures

- Setting strategic aims
- Performance and financial oversight
- Corporate Governance

National Grid plc Board
John Pettigrew (member)

Executive Committees

Delegated Authority

NG interconnector boards (operational)

NG interconnector boards (development)

NG Carbon Board

NG Offshore Board

NGET Board
Nick Winsor (chair)
Sufficiently independent directors are members

Interconnectors Management Board
Jon Butterworth (chair)
Interconnector operations

Business Development Management Board
Alan Foster (chair)
Interconnector/CCS development phase

Compliance Committee
Nick Winsor (chair)
Sufficiently independent directors are members

System Operator Executive Committee
Mike Calviou (Chair)

Electricity Transmission Owner Executive Committee
Ian Galloway (Chair)

- Operational and managerial control

Organisational Design and Corporate Governance

NGET Business Separation

National Grid
plc Board

National Grid
Electricity Transmission
plc (NGET)
– System Operator and
Transmission Owner

NGET are committed to ensure business separation with our competitive delivery interests, this includes:

- Separate legal entities, boards & governance
- Separate employees
- Separate Premises
- Separate Information Systems
- Separate finance and financial reporting
- No cross subsidies

National Grid
Interconnector
Holdings Ltd –
New/operational
interconnectors

National Grid Carbon
Ltd - development of
CCS

National Grid Offshore
Ltd - OFTO bidding
business

Compliance Statement – Annual Compliance Reporting produced by NGET for Ofgem to demonstrate compliance with business separation licence conditions

These measures are designed to mitigate conflicts of interest

Special Condition 2N (EMR): Licence Requirements

Establishment of:

1. EMR Data Handling Team (Modelling)

2. EMR Administrative Team (CFDs, CM)

- Small teams within NGET System Operator Function – subject to strict rules
- Must sign Confidentiality Agreement
- Code of Conduct linked to disciplinary procedure
- Restrictions on transfer of employees
- Administration Team is also restricted from working on other NGET activities and is subject to minimum posting periods.

Confidential EMR Information:

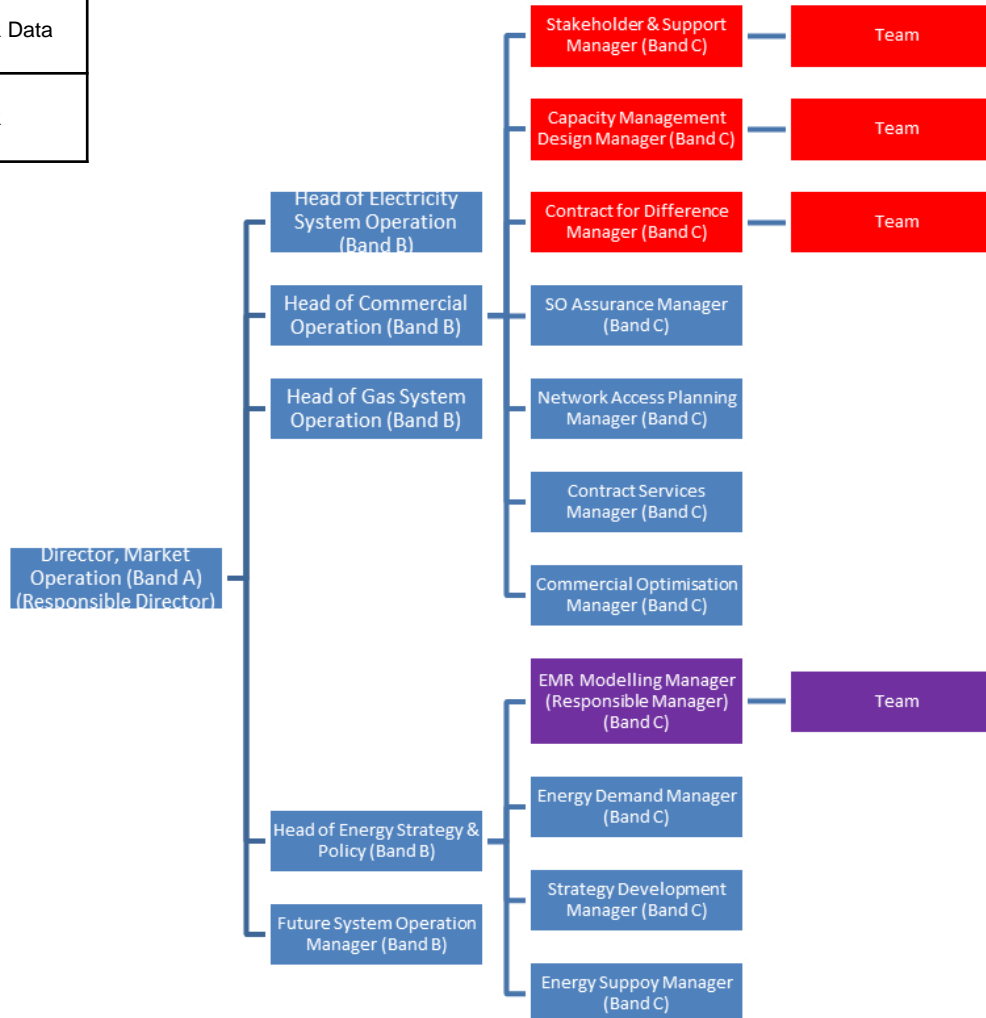
1. Obligations to protect

2. Restrictions on use

- Strict data security policy/secure system architecture
- Strict rules on information disclosure and usage – records must be kept
- Confidential (applicant specific) data cannot be shared outside the EMR team (except in very limited circumstances)
- Data kept in secure room – only EMR Admin team have swipe card access

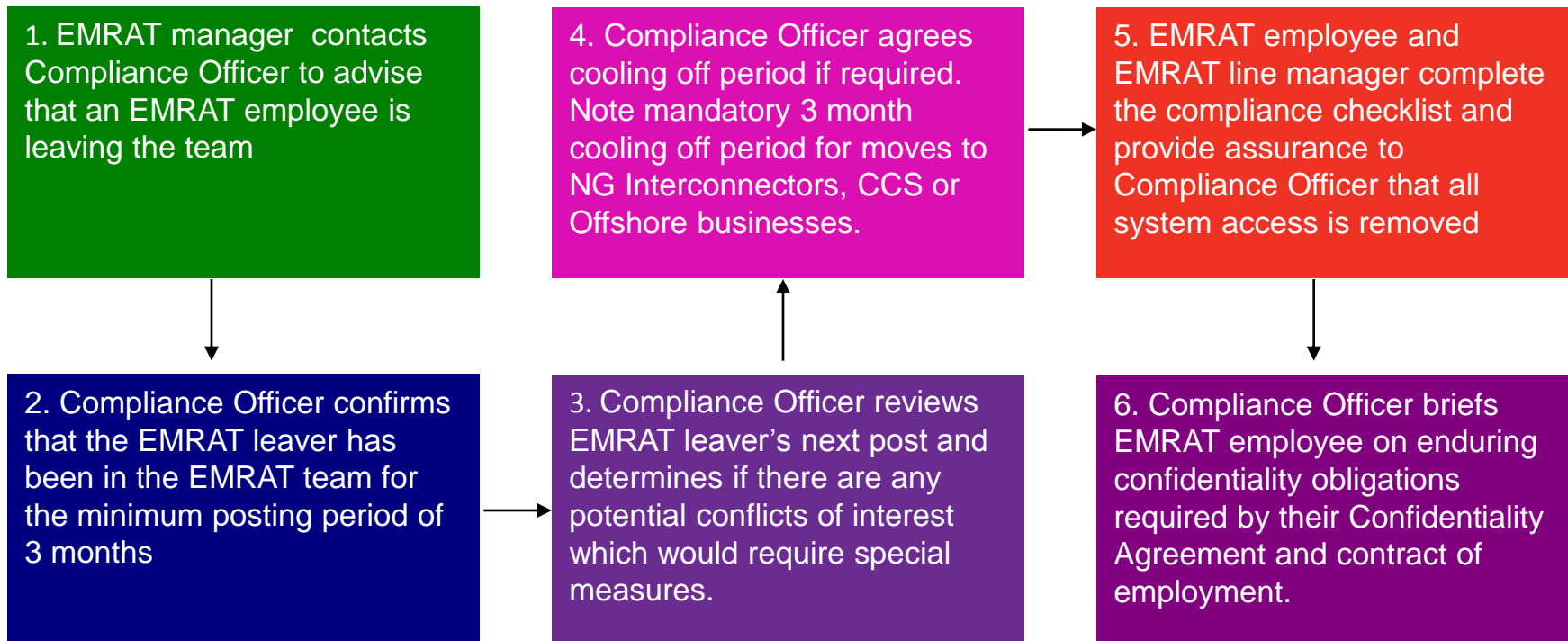
EMR Teams: Organisation Chart

	Members of the EMR Data Handling Team
	Members of the EMR Administrative Team



Practical example: Employee Transfer Restrictions

- in the event of a move out of the EMR Admin Team (EMRAT), how does the process work in practice?



Periodic audits confirm that the process is working effectively

Special Condition 2N (EMR): Compliance Framework



NGET must have in place:

A Compliance Statement approved by Ofgem and published on its Website. This sets out the processes and controls which NGET has adopted to secure compliance with Special Condition 2N and is backed up by local procedures.

A Responsible Director who will oversee EMR compliance (Cordi O'Hara)

NGET carries out:

An awareness and education programme

Compliance monitoring and reporting to the Compliance Committee

Periodic audits

NGET must submit:

An annual compliance report to Ofgem, accompanied by a compliance certificate approved by resolution of the NGET board of directors, and must publish the compliance report on its website

Questions



IS Update

Ian Woolley

Admin System Current Position

- Portal live on 10th April as planned
- Capacity Market solution on track for go-live 23rd June 2015
 - All requirements and design complete
 - User/Company Registration, Security, Password Management in User Acceptance Testing 16th April
 - CM development started with UAT start planned for 13th May
 - **Plan incorporates proposed DECC/Ofgem rule changes**
 - Some interim milestones moved

Admin System Current Position

- Our updated EMR Delivery Body Portal went live on 10th April
- www.emrdeliverybody.com (Clear your cache before using)

The screenshot shows the National Grid Electricity Market Reform Delivery Body website. The header includes the National Grid logo and the text 'Electricity Market Reform DELIVERY BODY'. A search bar and a 'Sign In' button are located in the top right. The navigation menu includes 'Home', 'Capacity Market', 'Contracts for Difference', 'About EMR', and 'Contact Us'.

The main content area is divided into three sections:

- Electricity Market Reform:** A large banner with a blue background and a photograph of a power plant. Text: 'Electricity Market Reform aims to deliver low carbon energy supplies whilst maintaining security of supply and minimising the cost to the consumer. EMR introduces two key mechanisms to provide incentives for the investment required in our energy infrastructure.'
- Contracts for Difference:** A pink banner with a photograph of wind turbines. Text: 'Contracts for Difference (CfD) is a UK Government led Electricity Market Reform (EMR) scheme aimed at attracting investments in low carbon technologies by providing long-term revenue stabilisation for new generation projects.'
- Capacity Market:** A green banner with a photograph of nuclear power plant cooling towers. Text: 'The Capacity Market aims to ensure the future security of our electricity supply at the lowest cost to consumers.'

Each of these three sections has a 'Subscribe for updates' link at the bottom.

The 'Latest News' section on the right contains the following items:

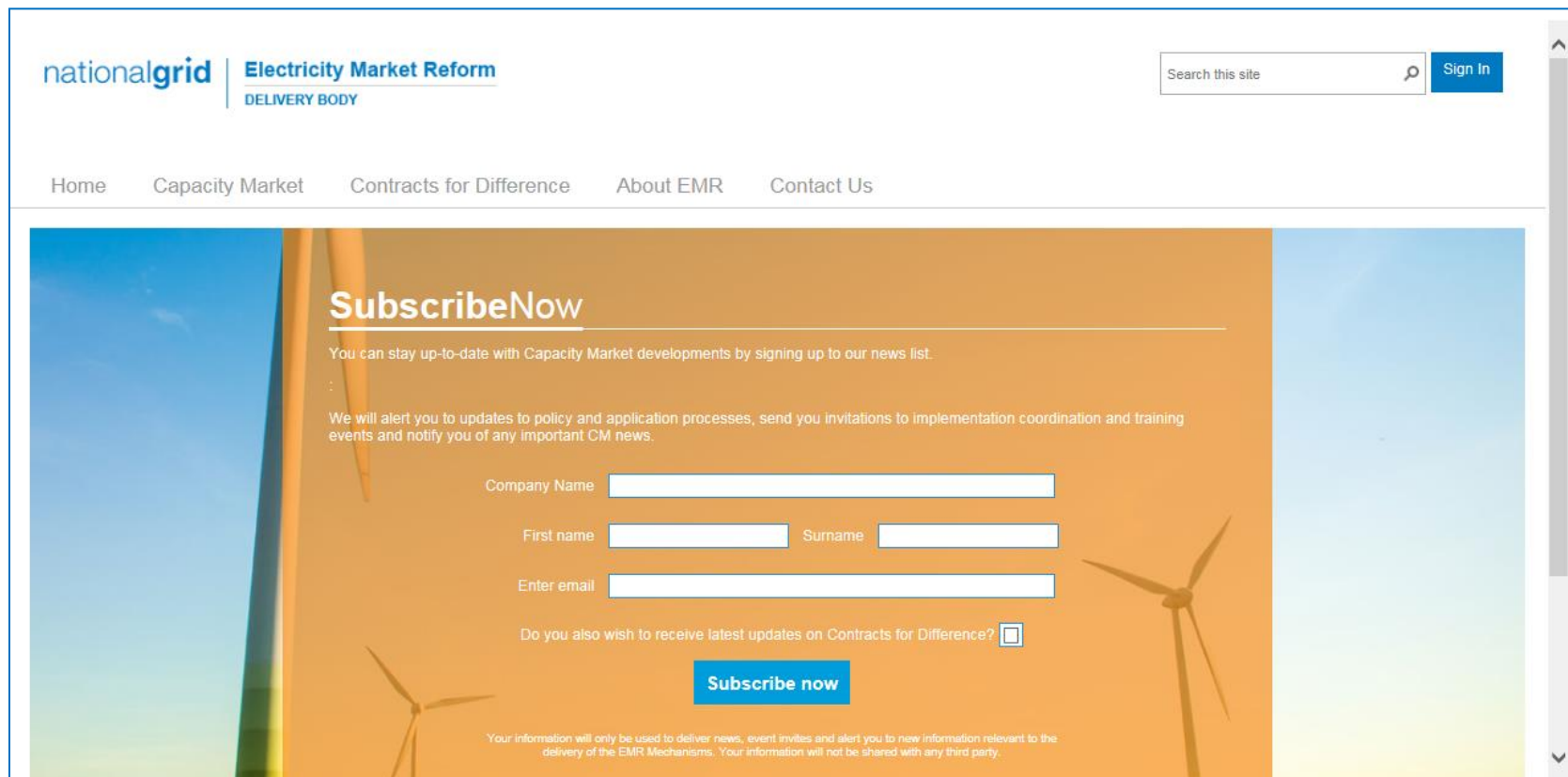
- REFRESH**
National Grid re-launches EMR Delivery Body Website
published 10 Apr 2015
- National Grid publishes 2015 Capacity Market Operational Plan
published 10 Apr 2015
- Ofgem EMR News**
- REFRESH**
Oftaker of Last Resort (OLR): Upcoming determination of mandatory supplier...
published 10 Feb 2015
- Oftaker of Last Resort (OLR): Upcoming determination of mandatory supplier...
published 10 Feb 2015
- Ofgem seeks stakeholder input for the Oftaker of Last Resort (OLR) scheme
published 30 Sep 2014
- Ofgem seeks stakeholder input for the Oftaker of Last Resort (OLR) scheme
published 30 Sep 2014
- Electricity Market Reform dispute resolution guidance: consultation decision...
published 29 Aug 2014

The footer contains links for 'Security', 'Cookie Policy', 'Privacy Policy', 'Terms and Conditions', and 'Accessibility'.

- Portal will be showcased during lunch break today
- Please go and look and give feedback

Admin System Current Position

- Please use the “subscribe” capability on the Home page to ensure you get alerts to all new information posted
- Please renew your subscription registration even if you were registered on old Portal



The screenshot shows the National Grid Electricity Market Reform website. The header includes the National Grid logo, the text 'Electricity Market Reform DELIVERY BODY', a search bar, and a 'Sign In' button. The navigation menu contains 'Home', 'Capacity Market', 'Contracts for Difference', 'About EMR', and 'Contact Us'. The main content area features a 'Subscribe Now' section with a background image of wind turbines. The text reads: 'You can stay up-to-date with Capacity Market developments by signing up to our news list.' and 'We will alert you to updates to policy and application processes, send you invitations to implementation coordination and training events and notify you of any important CM news.' The form includes fields for 'Company Name', 'First name', 'Surname', and 'Enter email'. There is a checkbox for 'Do you also wish to receive latest updates on Contracts for Difference?' and a blue 'Subscribe now' button. At the bottom, a small disclaimer states: 'Your information will only be used to deliver news, event invites and alert you to new information relevant to the delivery of the EMR Mechanisms. Your information will not be shared with any third party.'

nationalgrid | Electricity Market Reform
DELIVERY BODY

Search this site

Home Capacity Market Contracts for Difference About EMR Contact Us

Subscribe Now

You can stay up-to-date with Capacity Market developments by signing up to our news list.

We will alert you to updates to policy and application processes, send you invitations to implementation coordination and training events and notify you of any important CM news.

Company Name

First name Surname

Enter email

Do you also wish to receive latest updates on Contracts for Difference?

Your information will only be used to deliver news, event invites and alert you to new information relevant to the delivery of the EMR Mechanisms. Your information will not be shared with any third party.

CM Admin system - Plan on a Page

All "End" Dates	2015									
	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov
Admin System Development										
Design/Requirements		✓					Portal 04/03, CM 10/04			Now 17/4
Development		✓					Portal 16/03, CM 12/05			Now 13/5
Test Preparation		✓					Portal 11/03, CM 01/05			Now 12/5
UAT			✓				Portal 02/04, CM 11/06			Now 12/6
Training			✓				Portal 03/04, CM External 29/04			Now 03/7
Environments		✓	Live 24/03							
Go Live			✓	Portal 10/04			CM 23/06	Unchanged		
Regime Cycle		Key:								
System training (ext)		Portal Milestones								
Familiarisation		CM Milestones								
Window opens		CM Milestones Updated Includes Rule Changes					Pre-Qual open 20/07			
Window closes		Regime/Rules Milestones					Pre-Qual closes 14/08			
Stakeholder Events										
Assessment							Results 25/09			

User System Requirements

- The minimum system requirements for Participant system access

Description	Admin System	
Downloads	No executable downloaded code or cookies	
Supported Browsers (Laptop, PC, Apple Macbook)	<ul style="list-style-type: none"> • IE 11, 10, 9 (IE8 NOT supported) • Google Chrome (latest version) • Mozilla Firefox (latest version) • Apple Safari (latest version) 	Recommended minimum resolution 1280x720
Supported Browsers (Mobile/Tablet)	Windows Phone - OS 7.5 or later <ul style="list-style-type: none"> • Browser IE Mobile Windows OS – Windows 7 or later <ul style="list-style-type: none"> • Browser – IE iOS – iOS 5.0 or later <ul style="list-style-type: none"> • Browser - Safari (limited support using iOS5.1) Android – OS4.0 or later <ul style="list-style-type: none"> • Browser - Android 	
Operating Systems	Microsoft Win7 or higher	
Internet Connection	Full Internet connection required	
Microsoft Office	Microsoft Office 2010 or higher	

User Support Arrangements

Description	Portal
System Available for use	24*7
System Supported Period	8am–6 pm Mon-Fri
Contact Us Telephone Support (01926 655300)	8am–6 pm Mon-Fri
System Availability (in supported period)	99.9%
Recovery Time	2 Hours
“Hot” Disaster Recovery	Yes (Refresh)

Security

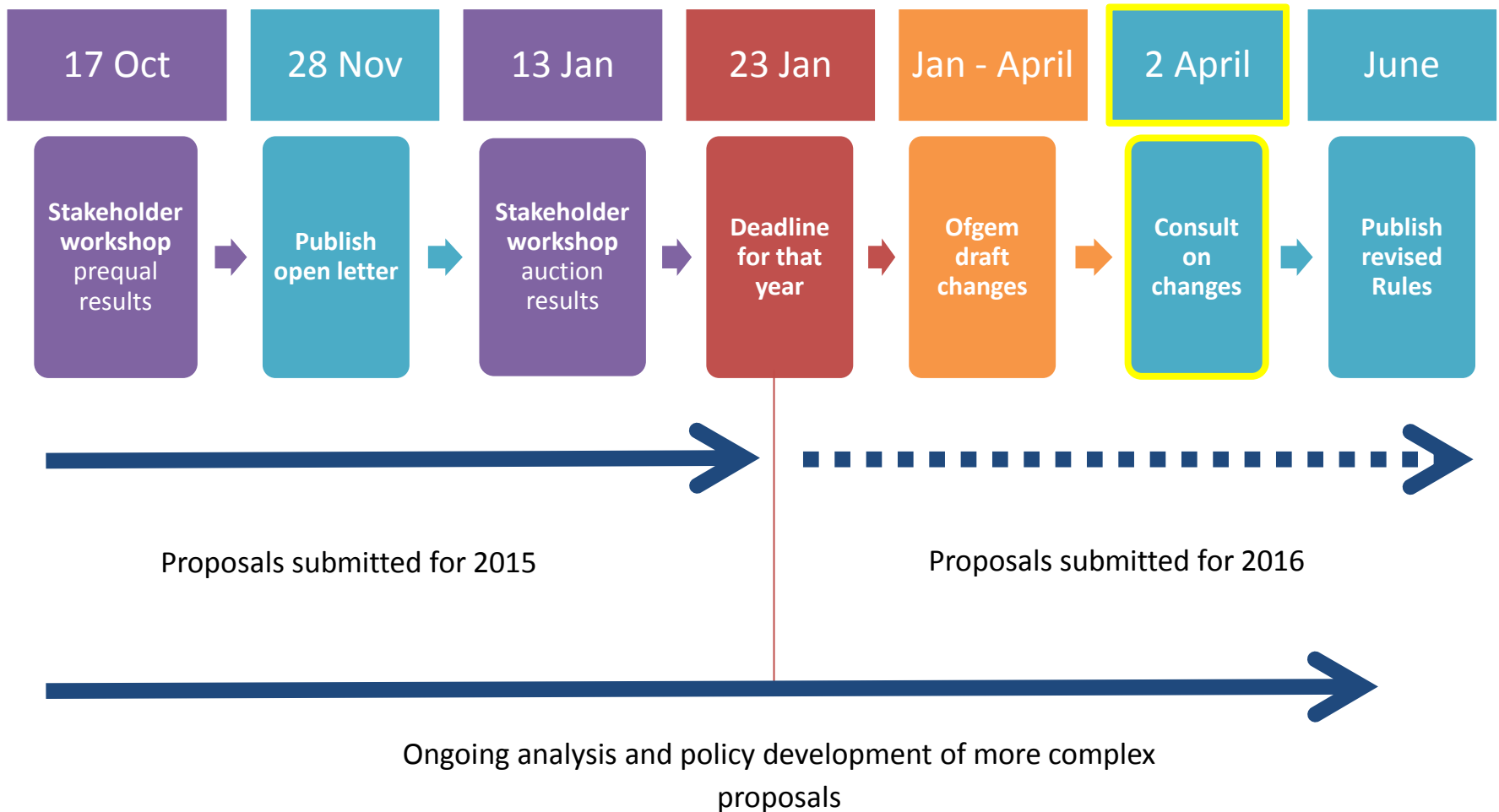
- Authentication
 - User name, password and PIN number required, Maintained via segregated ADFS
 - PIN authentication through SMS
 - Password 8 digits, at least 1 upper case, 1 lower case and 1 number or special character, changed every 90 days
- Policies
 - Solutions are designed to comply with National Grid Security Standards and Codes of Practice which are all Government and CPNI approved
- Data Centres
 - All data centres used are ISO 27001/2 standards and SSAE16 Type II certified
- Personnel
 - All National Grid and IBM personnel are bound by our security standards and associated background checking
- Channels
 - All National Grid/Participant/Delivery Partner exchanges will be via https secure Internet channels or secure email
 - Intra-Data Centre communications are via secure VPN
- Intrusion Protection
 - Anti Virus and Malware protection on all servers, Network Security Zones, Edge Network Security, Deep Packet Inspection, Core Firewall Multi Layer Switches

Capacity Market rules change process

Update April 2015

ofgem

The Rules Change Process



- We received 91 proposals from stakeholders and plan to make 3 of our own amendments
 - Suggest taking forward **36*** proposals
 - Further considering **10*** proposals
 - Rejecting **48*** proposals
- Consultation published 2 April
 - Consultation document
 - Draft amendments to the Rules
- Response due by 5 May
 - EMR_CMRules@ofgem.gov.uk

* Numbers not exact as some proposals are duplicates

Not planning to make major changes to the rules:

- First year of the CM and not all rules have been tested
- Avoid unintended consequences
- Avoid confusion with DECC's changes

We don't have time to go through specific proposals now. But we are happy to discuss any specific issues outside of this event

We mentioned three areas of focus in our open letter:

1. Streamlining and clarifying prequalification
2. Rules governing DSR
3. Price Maker Memorandum process

Our objectives for CM rule changes are set out in legislation and are in addition to our primary objectives:

- promoting investment in capacity to ensure security of electricity supply
- facilitating the efficient operation and administration of the Capacity Market
- ensuring the compatibility of the Capacity Market Rules with other subordinate legislation under Part 2 of the Energy Act 2013

In responding to our consultation, please provide evidence of how the change would help to meet these objectives

DECC

- Changes to the Regulations
 - whether to run an auction and the target level to contract
 - the length of capacity agreements
 - the appeals process
- Introducing interconnector arrangements
- SoS retains right to change the Rules, eg 27 March draft rules

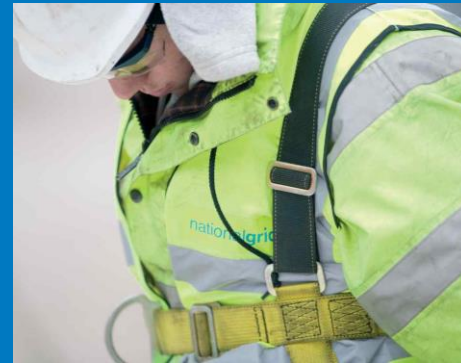
Ofgem

- Changes to the Rules
 - eligibility & prequalification process
 - format of auctions, eg no of rounds
 - the detailed calculation of obligations and agreements
 - information requirements
 - the penalty regime
- Specific CM objectives
- Annual operational report of CM for DECC

- We encourage you to respond to our consultation
 - Reminder: 5 May, EMR_CMRules@ofgem.gov.uk
- Please contact us if you have any specific concerns
- Aim to publish our changes to the Rules in June

Questions?

Prequalification Process



15 April 2015

Registration

Mark Duffield

Registering for CM Pre-Qualification

■ High Level Principles

- All Companies that wish to participate in either the Capacity Market or Contracts for Difference will need to register
- Registration is necessary to ensure a publically recognised officer of the company has approved the registration
- Thereafter other “company users” of the Portal may be added by the main company administrator user(s)
- Companies registered during 2014 will not need to register again

Registering for CM Prequalification

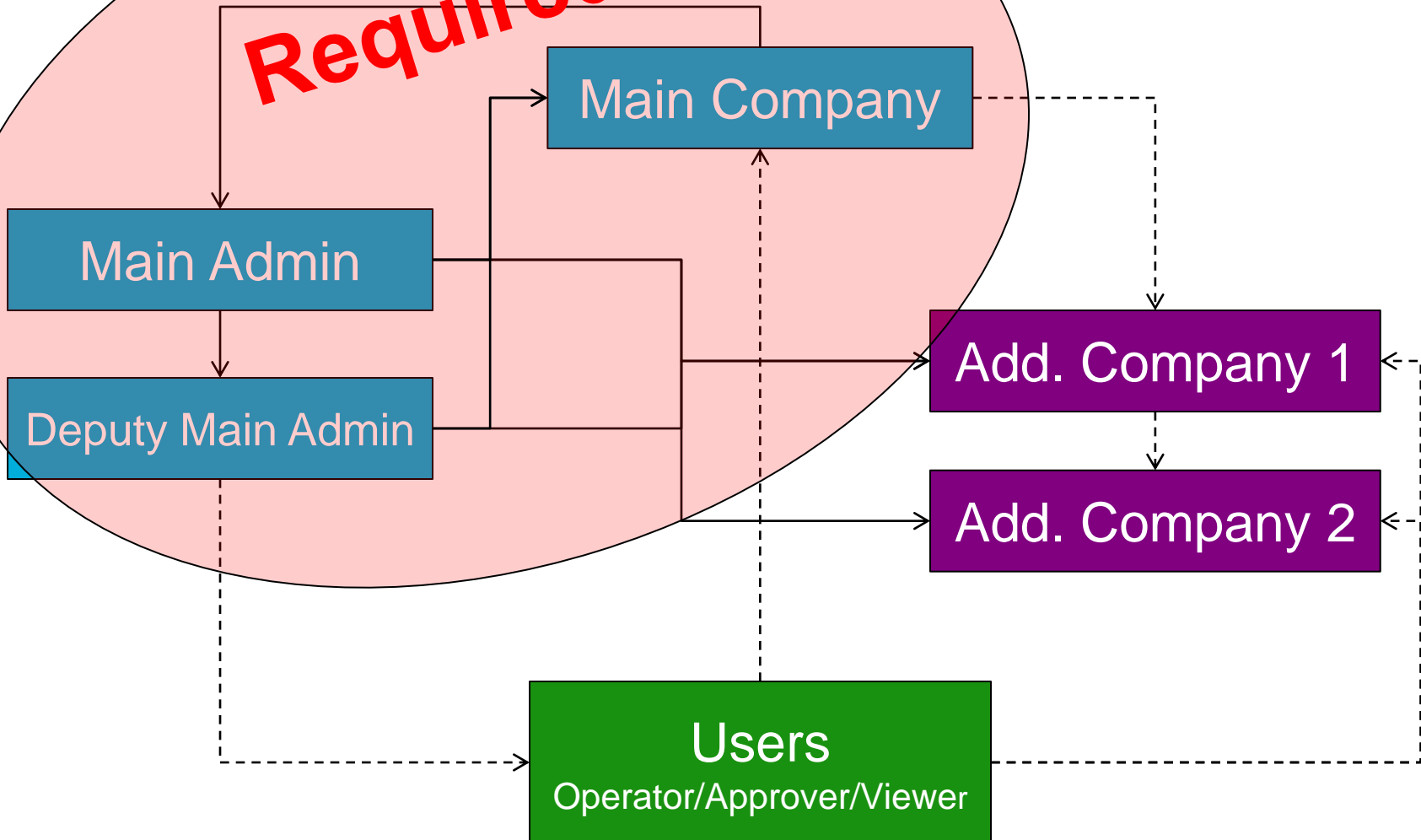
- Each Company needs to nominate at minimum
 - Company Secretary/Director (Authorised Person) – somebody recognisable in the public domain –
 - Main Portal “Company Administrator”
- Proposed “Company Administrator” fills in online form to nominate themselves. Also completes details of Authorised Person
- Registration form is generated and needs to be printed on company letter headed notepaper, signed, scanned uploaded to portal
- NG cross-checks company details against public records and upon successful cross-check will allow full log-in details to be created by both parties
- All log-ins will be password and PIN protected

Registering for CM Prequalification

- Main Company Administrator once logged in may then:
 - Create subsidiary companies within the system to reflect corporate structure and
 - Add other users to act for either the main company or any subsidiary company
 - Users then allocated roles in relation to one or more companies – e.g. to create Applications

Registration

Required



Prequalification Overview

Mark Duffield

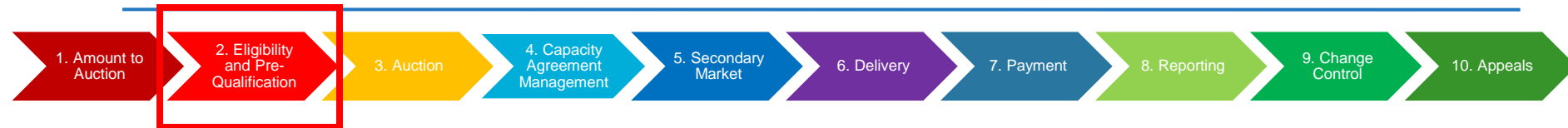
Pre-Qualification Agenda

- Prequalification Overview
- Submission of Prequalification Data
- Size of the CMU
- National Grid Assessment of Prequalification

Agenda

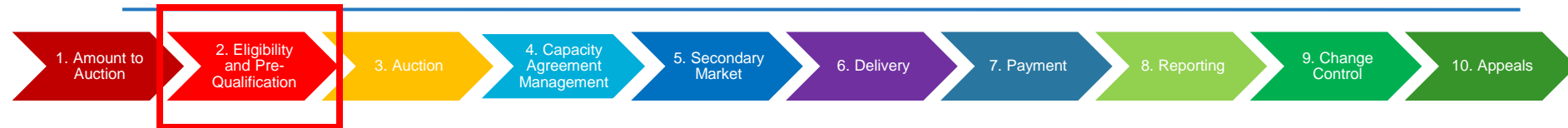
Prequalification Overview

Pre-Qualification Overview



- Prequalification is required to “verify” that potential sources of capacity are genuine physical resources
- Key considerations for a Prequalification Application
 - The Applicant must be either the **legal owner** of the asset or its **despatch controller** (with agreement from the legal owner)
 - Must be accompanied by **declarations signed by two directors or officers** of the Applicant (where the applicant has two directors)
 - Applications must be submitted by the end of the Prequalification Window currently planned for **5pm on Friday 14 August**

Pre-Qualification Overview



■ Key Prequalification Dates for 2015

■ System Available – late June 2015

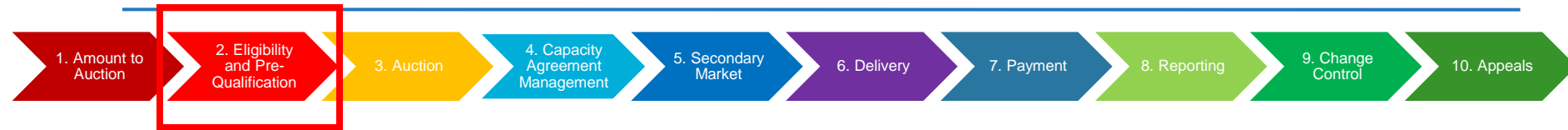
- Applications can start to be built as soon as system is available

■ Prequal Submission Window Opens: Monday 20 July

■ Prequal Submission Window Closes: 5pm Friday 14 August

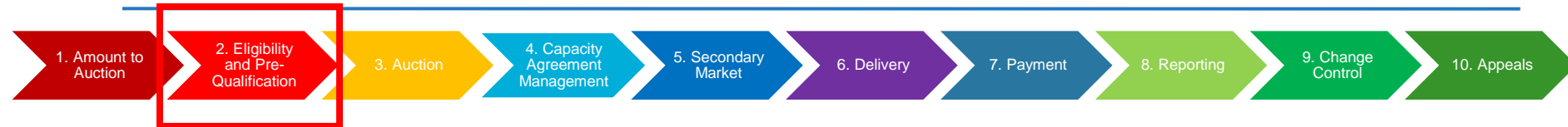
■ Prequal Results Day: Friday 25 September

Pre-Qualification Overview



- Prequalification process “user driven”
 - System is being designed to guide parties through the prequalification process and the data required
 - National Grid is able to answer general queries about the prequalification system
 - National Grid will not be available to give “advice” about how a project should be presented into prequalification
 - No contact with NG after prequal window shuts and we are assessing Applications to verify submitted in accordance with Rules (14 Aug - 25 Sep)

Pre-Qualification High Level Q&A



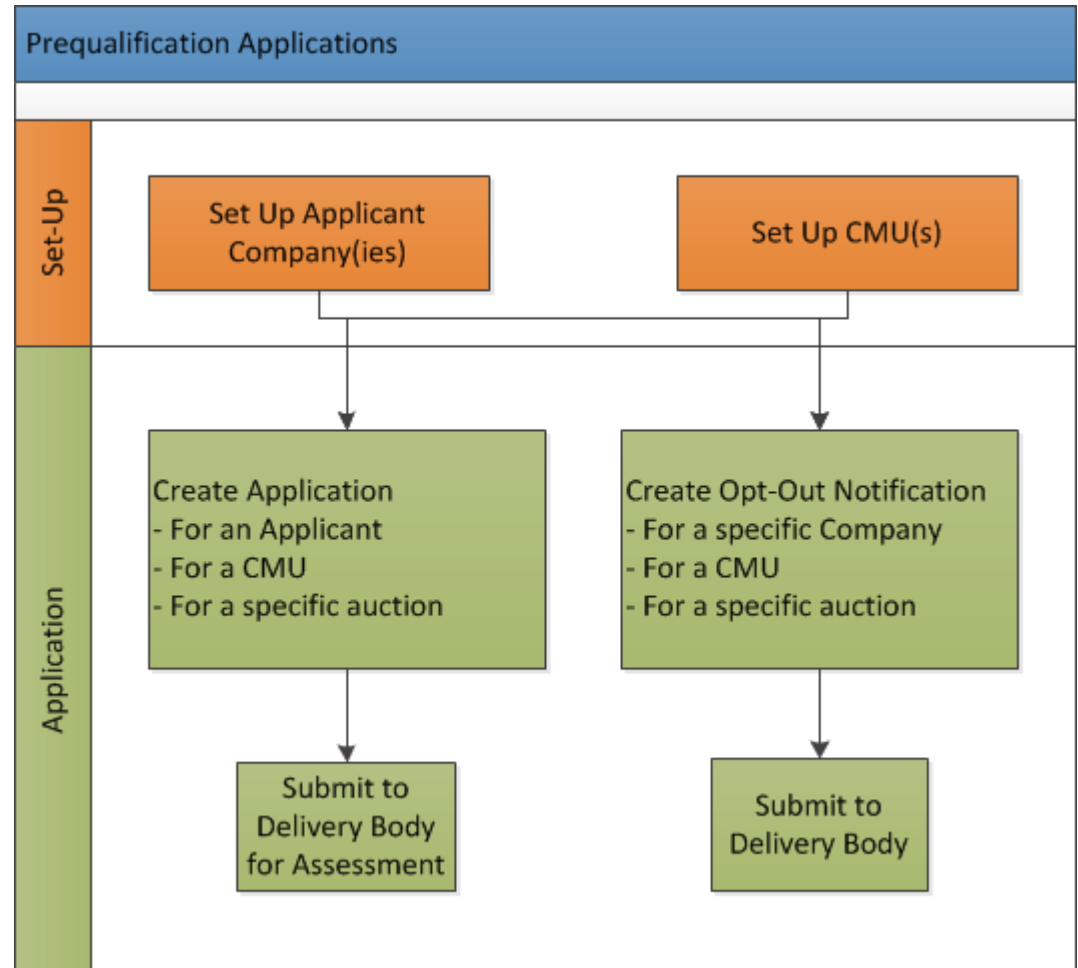
- **Q: Will there be any pre-loading of information by the Delivery Body**
- **A:** Data will be able to be “cloned” or re-used from previous Applications, but the Delivery Body will not pre-load any information. All information has to be the responsibility of the Applicant and so submission of it cannot be “delegated” to the Delivery Body.

Agenda

Submission of Prequalification Data

Generic Structure of an Application

- Applications submitted in respect of a CMU and an Applicant Company
- Data and documents for these are inputted prior to the Application being created
- Data then transferred from CMU and Company into the Application (and can be reused for other future Applications)

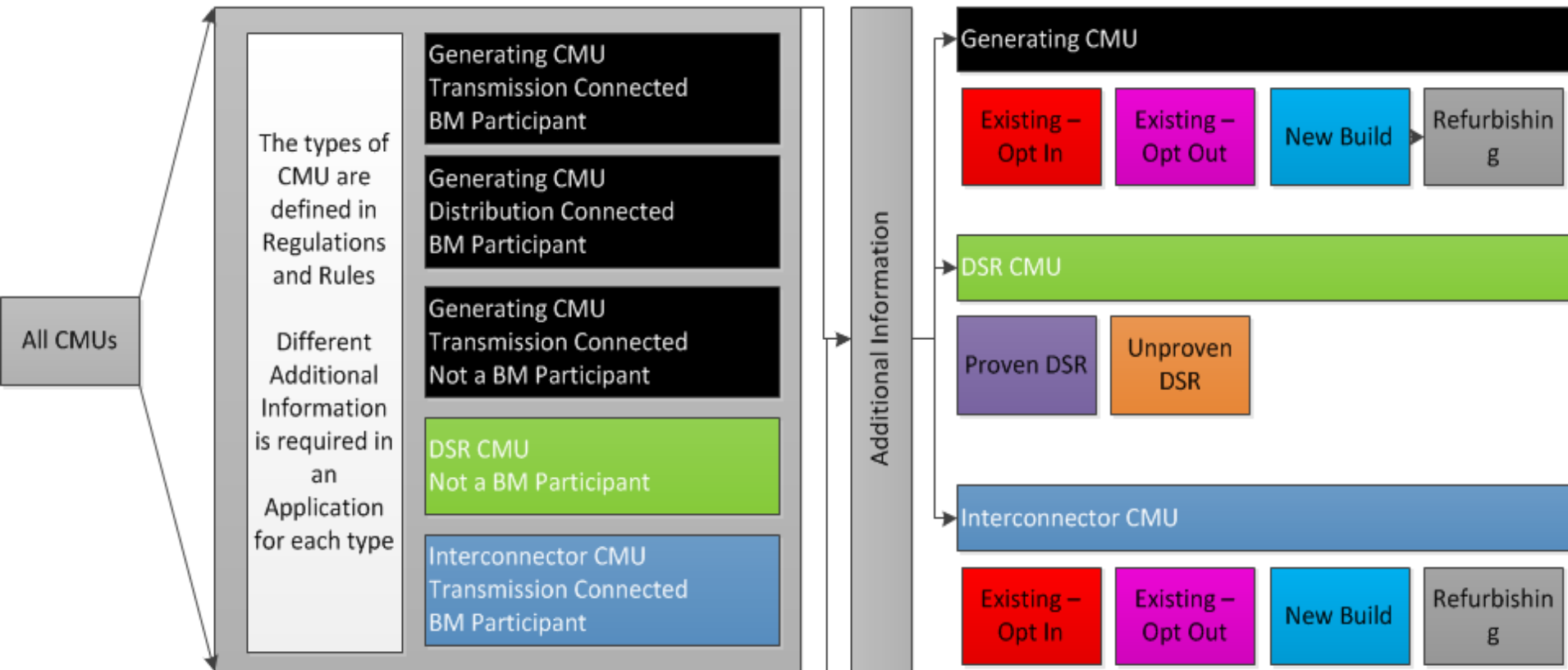


Setting up a Company

- Basic Company Information created through a company registration process
- Following documentation also able to be uploaded against a company where it is required
 - A copy of the company's Certificate of Incorporation
 - Legal Opinion
 - Pre-Qualification Certificate
 - Certificate of Conduct
- Also a requirement to identify if the company is a holder of a generation or interconnector licence (though the former proposed to be removed as a requirement)

Set Up CMU(s)

Setting up a CMU: Data Requirements



The Prequalification System will “walk the user through” the data entry process

Setting up a CMU

All CMUs – CMU Information

Set Up CMU(s)

Information	Details	Comment
Nomination relating to the CMU	Name of CMU Type of CMU – which sets the Additional Information Required	System generated Drop-Down Box

CMU Component Information

Information	Details	Comment
Nomination relating to the CMU Component	Description of and location of the CMU Component MPAN numbers and other relevant meter numbers BMU ID or Bal. Services ID (if applicable)	Data to be entered in Prequal System
De-rated Capacity	Connection Capacity or DSR Capacity of a component Technology Class of a component Selected de-rating factor of a component	(These are aggregated by the system to give CMU De-Rated Capacity)

Metering Information

Information	Details	Comment
Metering Assessment	Questions to establish if the Settlement Body will need to carry out a further detailed check of metering arrangements	
Metering Info	Line Diagrams and other data on the CMU's metering set-up	

Setting up a CMU

Existing Generating CMU

Information	Details	Comment
Grid Code Compliance (If applicable)	Declare compliant, and whether reliant on any derogations (Only where not generated in previous two years)	To be removed should Ofgem approve a proposed change to the Rules
Connection Agreements	Provide copy of Connection Agreement (Grid Connection Agreement(s) or Distribution Connection Agreement(s) or letter from DNO) confirming that they permit the Generating Unit in the CMU in aggregate to export at least the Anticipated De-rated Capacity of the CMU	This must be uploaded in electronic copy

Setting up a CMU

New Build Generating CMU

Information	Details	Comment
Planning Consents	Declare all Relevant Planning Consents obtained (or able to defer declaration in 2015 to 17 days before auction)	Declaration
Construction Plan	<p>Brief description of the works</p> <p>Schedule identifying :</p> <ul style="list-style-type: none"> a) start of construction works b) back-feed milestone c) Substantial Completion Milestone <p>Amount of Capital Expenditure proper to be incurred within 12 months of auction</p> <p>That the expected Capital expenditure exceeds 3 or 15 year thresholds (auction parameters)</p>	Data to be entered directly in Prequal System

Setting up a CMU

New Build Generating CMU

Information	Details	Comment
Connection Agreement	<p>Transmission Connected: Copy of one or more Grid Connection Agreement for at least the de-rated capacity by the start of the Delivery Year, or confirmation that they will have TEC by no later than 18 months prior to the delivery year (2014 and 2015 only)</p> <p>Distribution Connected – one of:</p> <p>a) Copy of one or more Distribution Connection Agreement for at least the de-rated capacity by the start of the Delivery Year</p> <p>b) Copy of one or more Distribution Connection Offer or at least the de-rated capacity by the start of the Delivery Year</p> <p>c) Declare the CMU will have such a connection offer at least 18 months prior to start of Delivery Year</p>	Soft Copy to be uploaded into Auction System
Credit Support	<p>Credit support to cover Termination Fee (New Build only)</p> <p><u>To be provided to Settlement Body</u></p>	<u>Follows after Prequal Results Day</u>

Setting up a CMU

Refurbishing Generating CMU

- A Refurbishing CMU must provide Additional Information to cover both possible states of the CMU or alternatively submit an “Opt-Out Declaration for the “Pre-Refurbishment CMU” if it is a “Mandatory CMU”:
 - Additional Info for an “Existing Generating CMU” for the “Pre-Refurbishment” CMU
 - Additional Info for a “New Build CMU” for the Refurbishing CMU
 - Exceptions
 - Planning Consents declaration not needed if no further consents required
 - Construction Plan need not specify a “Back-Feed Milestone”
- Must also make additional statement in Prequalification Certificate that multi-year agreement needed to undertake the refurbishment⁷⁰

Setting up a CMU Proven DSR

Set Up CMU(s)

Information	Details	Comment																
DSR Test Certificate	DSR Test required to be completed prior to the commencement of the Prequalification Window – successful completion of which will see a DSR Test Certificate being issued	Upload of scanned document																
Permitted On-Site Gen Units	Details of all such generating units and their electrical connections to the site where DSR Capacity is being provided	Data to be entered directly in Prequal System																
Business Model	<div data-bbox="492 758 1458 1349" style="border: 1px solid black; padding: 10px;"> <p>EMR Delivery Body</p> <p>Business Model for a Proven DSR CMU</p> <p>Proven DSR CMU to which the Construction Plan Applies <input type="text" value="(insert CMU ID)"/></p> <table border="1" data-bbox="537 892 1450 1139"> <thead> <tr> <th>Name & Location of CMU Component</th> <th>Type of DSR effected by the DSR CMU Component</th> <th>Summary of the relationship between the DSR Provider and the DSR CMU Component</th> <th>Meter Point Administration Number(s) or details of other meter(s) used to measure provision of DSR (N/A if DSR Test Certificate Included for CMU)</th> <th>Metering Test Certificate or metering configuration (N/A if DSR Test Certificate Included for CMU)</th> <th>Method(s) of achieving load reduction</th> <th>Equipment control or installed or to be controlled and installed</th> <th>Details of how the DSR Capacity of the DSR CMU has been secured to the DSR Provider</th> </tr> </thead> <tbody> <tr> <td> </td> <td> </td> <td> </td> <td> </td> <td> </td> <td> </td> <td> </td> <td> </td> </tr> </tbody> </table> <p>By signing this DSR Business Model I declare that it is</p> <ol style="list-style-type: none"> 1) to the best of my knowledge and belief based upon reasonable assumptions 2) accurately describes the manner in which any DSR Capacity has been secured 3) not misleading <p>Signed: _____ Date: _____</p> </div>	Name & Location of CMU Component	Type of DSR effected by the DSR CMU Component	Summary of the relationship between the DSR Provider and the DSR CMU Component	Meter Point Administration Number(s) or details of other meter(s) used to measure provision of DSR (N/A if DSR Test Certificate Included for CMU)	Metering Test Certificate or metering configuration (N/A if DSR Test Certificate Included for CMU)	Method(s) of achieving load reduction	Equipment control or installed or to be controlled and installed	Details of how the DSR Capacity of the DSR CMU has been secured to the DSR Provider									Data to be entered directly in Prequal System
Name & Location of CMU Component	Type of DSR effected by the DSR CMU Component	Summary of the relationship between the DSR Provider and the DSR CMU Component	Meter Point Administration Number(s) or details of other meter(s) used to measure provision of DSR (N/A if DSR Test Certificate Included for CMU)	Metering Test Certificate or metering configuration (N/A if DSR Test Certificate Included for CMU)	Method(s) of achieving load reduction	Equipment control or installed or to be controlled and installed	Details of how the DSR Capacity of the DSR CMU has been secured to the DSR Provider											

Setting up a CMU Unproven DSR (1 of 2)

Set Up CMU(s)

Information Details

Business Plan

DSR Delivery Study
Business Plan for an Unproven DSR CMU

Please provide details of the Unproven DSR CMU proposal including the steps already taken to engage the DSR Capacity and to Contractual DSR Control

Please complete the following table for each DSR CMU Component with which the DSR Provider has already established a relationship:

Name & Location of CMU Component	Type of DSR reflected by the DSR CMU Component	Summary of the relationship between the DSR Provider and the DSR CMU Component	Meter Point Administrative Number(s) of other meter(s) used to provide provision of DSR (N/A if DSR Test Certificate included for CMU)	Meter Point Certificate or Metering configuration (N/A if DSR Test Certificate included for CMU)	Methods of achieving load reduction	Equipment control or installed or to be controlled and installed	Details of how the DSR Capacity of the DSR CMU has been secured to the DSR Provider
----------------------------------	--	--	--	--	-------------------------------------	--	---

Page 1 of 3

By signing this DSR Business Plan I declare that it is:

- to the best of my knowledge and belief based upon reasonable assumptions
- accurately describes the manner in which any DSR Capacity has been secured
- not misleading

Signed: _____ Date: _____

Page 2 of 3

Please complete the following table as far as information is available for each DSR CMU Component with which the DSR Provider intends to establish a relationship:

Name & Location of CMU Component	Type of DSR reflected by the DSR CMU Component	Summary of the relationship between the DSR Provider and the DSR CMU Component	Meter Point Administrative Number(s) or details of other meter(s) used to provide provision of DSR (N/A if DSR Test Certificate included for CMU)	Metering Test Certificate or metering configuration (N/A if DSR Test Certificate included for CMU)	Methods of achieving load reduction	Equipment control or installed or to be controlled and installed	Details of how the DSR Capacity of the DSR CMU has been secured to the DSR Provider
----------------------------------	--	--	---	--	-------------------------------------	--	---

Please provide details of the programme or strategy for procuring any further DSR CMU Components to ensure that the Unproven DSR Capacity is available, including:

- Methods of achieving load reduction
- Equipment controlled or installed, or to be controlled or installed
- Details of how the DSR Capacity of the DSR CMU has, or will be, secured to the DSR Provider
- Any additional information as previously specified as being required by the Delivery Study (in the Access Guidelines) for an Unproven DSR CMU

Page 3 of 3

Data to be entered directly in Prequal System

Setting up a CMU

Unproven DSR (2 of 2)

Information Relating to:	Details	Comment
DSR Test Certificate	Confirmation that the a DSR Test will be completed prior to the start of the relevant Delivery Year	
Metering Assessment	Confirmation the a Metering Assessment will be completed and if necessary a Metering Test will be completed in each case prior to the start of the relevant Delivery Year	
Credit Support	Credit support to cover Bid Bond <u>To be provided to Settlement Body</u>	

Setting up a CMU

Existing Interconnector CMU

Information	Details	Comment
Grid Code Compliance (If applicable)	Declare compliant, and whether reliant on any derogations (Only where not exported in previous two years)	To be removed should Ofgem approve a proposed change to the Rules
Connection Agreements	Provide copy of Connection Agreement (Grid Connection Agreement(s) or Distribution Connection Agreement(s) or letter from DNO) confirming that they permit the Generating Unit in the CMU in aggregate to export at least the Anticipated De-rated Capacity of the CMU	This must be uploaded in electronic copy
Technical Data	<ul style="list-style-type: none"> - Technical specifications of the Interconnector - Country interconnector connects to GB - Forecast technical reliability 	Data to be entered directly in Pre-Qual System

Setting up a CMU

New Build Interconnector CMU

Information	Details	Comment
Planning Consents	Declare all Relevant Planning Consents obtained (may be able to defer declaration in 2015 to 17 days before auction)	Declaration
Construction Plan	<p>Brief description of the works</p> <p>Schedule identifying :</p> <ul style="list-style-type: none"> a) start of construction works b) back-feed milestone c) Substantial Completion Milestone <p>The “Total Project Spend for the construction of the New Build Interconnector CMU.</p>	Data to be entered directly in Prequal System

Setting up a CMU

New Build Interconnector CMU

Information	Details	Comment
Connection Agreement	A copy of one or more Grid Connection Agreements with sufficient Transmission Entry Capacity for at least the de-rated capacity secured by the start of the Delivery Year	Soft Copy to be uploaded into Auction System
Credit Support	Credit support to cover Non-Completion Fee @ £5,000/MW <u>To be provided to Settlement Body</u>	<u>Follows after</u> <u>Prequal Results</u> <u>Day</u>

Setting up a CMU

Refurbishing Interconnector CMU

- A Refurbishing Interconnector CMU must provide Additional Information to cover both possible states of the CMU or alternatively submit an “Opt-Out Declaration for the “Pre-Refurbishment Interconnector CMU”:
 - Additional Info for an “Existing Interconnector CMU” for the “Pre-Refurbishment” CMU
 - Additional Info for a “Prospective Interconnector CMU” for the “Post Refurbishment” CMU
 - Exceptions
 - Planning Consents declaration not needed if no further consents required
 - Construction Plan need not specify a “Back-Feed Milestone
- Must also make additional statement in Prequalification Certificate that multi-year agreement needed to undertake the refurbishment⁷⁷

Setting up a CMU & Application / Opt-Out

- Bulk of all data required is set up against a CMU
- This data once set-up can be reused each year if it hasn't changed
 - If some data changes then the new data can be updated without having to upload all of the unchanged data again
- When completing the an Application / Opt-Out Notification the system will copy all of the appropriate CMU and company data into the Application / Opt-Out
 - Then all that is required is certain “Application or Opt-Out specific” data

Creating an Application

Information	Details	Comment
<p>If the Application is from a company acting as the “Despatch Controller” or “Joint Owner” for the CMU then an “Applicant Declaration” signed by Directors of both the Legal Owner and the Despatch Controller / Joint Owners is required</p>	<div style="display: flex; justify-content: space-around;"> <div data-bbox="523 482 880 982"> <p style="text-align: center;">EXHIBIT D: FORM OF APPLICANT DECLARATION</p> <p style="text-align: center;">Applicant Declaration</p> <p>The following confirmations and declarations are made jointly by [Party A] (the “Legal Owner”) and [Party B] (the “Despatch Controller”) and, together with the Legal Owner, the “Relevant Parties” with respect to the following Generating CMU: [Description of CMU to be awarded; (the “Relevant CMU”) and in relation to the Application to which this declaration relates (the “Relevant Application”).</p> <p>(i) Each of the Relevant Parties hereby confirms that:</p> <ul style="list-style-type: none"> (i) the Legal Owner is the legal owner of each Generating Unit comprised within the Relevant CMU; and (ii) the Despatch Controller has Despatch Control with respect to each Generating Unit comprised within the Relevant CMU. <p>(ii) Each of the Relevant Parties hereby declares that:</p> <ul style="list-style-type: none"> (i) the Despatch Controller is the Applicant for the Relevant CMU in relation to the Relevant Application; (ii) in the event that the Relevant CMU becomes a Prequalified CMU for the Capacity Auction to which the Relevant Application relates, the Despatch Controller will be the Bidder for the Relevant CMU in that Capacity Auction; and (iii) in the event that the Relevant CMU becomes a Capacity Committed CMU pursuant to the Capacity Auction to which the Relevant Application relates, the Despatch Controller will be the Capacity Provider for the Relevant CMU. <p>Capitalised terms in used herein have the meaning given to them in the Capacity Market Rules unless otherwise indicated.</p> <p>DATED: [x]</p> <p>Signed for and on behalf of the Legal Owner</p> <div style="display: flex; justify-content: space-between; margin-top: 10px;"> <div style="width: 45%;"> <p>_____ Director</p> <p>Print Name: _____</p> </div> <div style="width: 45%;"> <p>_____ Director</p> <p>Print Name: _____</p> </div> </div> <p>Signed for and on behalf of the Despatch Controller</p> <div style="display: flex; justify-content: space-between; margin-top: 10px;"> <div style="width: 45%;"> <p>_____ Director</p> <p>Print Name: _____</p> </div> <div style="width: 45%;"> <p>_____ Director</p> <p>Print Name: _____</p> </div> </div> </div> </div> <div data-bbox="962 482 1335 982"> <p style="text-align: center;">“EXHIBIT DA: FORM OF JOINT OWNER DECLARATION FOR EXISTING INTERCONNECTOR CMU</p> <p style="text-align: center;">Joint Owner Declaration for an Existing Interconnector CMU</p> <p>The following confirmations and declarations are made by [Party A; Party B; Party C as applicable] (the “Relevant Parties”) who are together the Joint Owners in relation to the following interconnector CMU (the “Relevant CMU”) and/or its associated Non-GB Part: [Description of Interconnector CMU and Non-GB Part to be inserted]</p> <p>and are made in relation to the Application for the Relevant CMU (the “Relevant Application”).</p> <p>(a) Each of the Relevant Parties hereby confirms that:</p> <ul style="list-style-type: none"> (i) each is a Joint Owner in relation to the Relevant CMU; and <p>(b) Each of the Relevant Parties hereby declares that:</p> <ul style="list-style-type: none"> (i) [Party] is the Applicant for the Relevant CMU in relation to the Relevant Application (the “Applicant Party”); (ii) in the event that the Relevant CMU becomes a Prequalified CMU for the Capacity Auction to which the Relevant Application relates, the Applicant Party will be the Bidder for the Relevant CMU in that Capacity Auction; (iii) in the event that the Relevant CMU becomes a Capacity Committed CMU pursuant to the Capacity Auction to which the Relevant Application relates, the Applicant Party will be the Capacity Provider for the Relevant CMU. <p>Capitalised terms used herein have the meaning given to them in the Capacity Market Rules 2014 unless otherwise indicated.</p> <p>DATED: [x]</p> <p>Signed for and on behalf of:</p> <p style="font-size: small; margin-top: 10px;">To be executed by each Relevant Party by the signature of two directors, unless Rule 1.3A applies or execution is on behalf of a company which is not a UK-registered company (in which case it is to be duly executed under the law of the applicable jurisdiction).“</p> </div>	

Creating an Application

- Finally a set of declarations must be completed within the Application

Information	Details	Comment
Application Declaration	Statement, signed by two Directors that Applicant or person submitting Opt-Out Notification has: <ol style="list-style-type: none"> 1) Complied with all laws prohibiting anti-competitive practises 2) Not engaged in any Market manipulation 3) Not breached the Bribery Act 2010 4) Not offered any inducement to any Administrative Party 5) Not disclosed Confidential Information other than where permitted 	Tick Box Declarations in Application <i>Planned to be removed pending an Ofgem change as already within the Certificate of Conduct</i>
STOR Declaration	Applicant must also declare that either: <ol style="list-style-type: none"> a) it is not the subject of a Relevant STOR Contract or b) It is the subject of a Relevant STOR Contract but irrevocably undertakes to withdraw from the contract should it be awarded a Capacity Agreement 	Tick Box Declarations in Application

Creating an Opt-Out Notification

- For an Opt-Out Declaration a CMU must be created and CMU Component data submitted (as if for an Existing CMU) before its Opt-Out Status is confirmed

Information	Details	Comment
Status Details	<p>Must declare whether and provide reason for:</p> <ul style="list-style-type: none"> a) Will be permanently non-operational by the start of the Delivery Year b) Will be temporarily non-operational for all the Winter of the Delivery Year c) Will remain operational for the Delivery Year 	Data to be entered directly in Pre-Qual System
Application Declaration	<p>Statement, signed by two Directors that Applicant or person submitting Opt-Out Notification has:</p> <ul style="list-style-type: none"> 1) Complied with all laws prohibiting anti-competitive practises 2) Not engaged in any Market manipulation 3) Not breached the Bribery Act 2010 4) Not offered any inducement to any Administrative Party 5) Not disclosed Confidential Information other than where permitted 	Upload copy into system

Agenda

Size of the CMU

Determining Connection Capacity

Transmission Connected Generating Units

Option 1

Unit level Connection Entry Capacity (CEC) as set out in the appropriate Bilateral Agreement

Option 2

Average of three highest metered outputs of the generating units in previous 24 months

Option 3

The Transmission Entry Capacity (TEC) of the Power Station split across all the generating units at the Power Station pro-rata according to the unit level CEC figures

Connection Capacity Worked Examples

All three generating units to Pre-Qualify

Power Station A

TEC = 1020MW

Unit 1

Normal Max Output = 500MW
 Max Metered Output = 495MW
 Unit CEC = 515MW

Unit 2

Normal Max Output = 500MW
 Max Metered Output = 492MW
 Unit CEC = 515MW

Unit 3

Normal Max Output = 25MW
 Max Metered Output = 0MW
 Unit CEC = 30MW

- Connection Capacity Option 1: Unit CEC
 - Unit 1 = 515MW
 - Unit 2 = 515MW
 - Unit 3 = 30MW

**Total Conn. Cap
1060MW**
- Conn. Capacity Option 2: Historic Output
 - Unit 1 = 495MW
 - Unit 2 = 492MW
 - Unit 3 = 0MW

**Total Conn. Cap
987MW**
- Conn. Capacity Option 3: TEC Pro-Rata
 - Unit 1 = 495MW
 - Unit 2 = 495MW
 - Unit 3 = 29MW

**Total Conn. Cap
1019MW**

Connection Capacity Worked Examples

Only the two main generating units to Pre-Qualify

Power Station A

TEC = 1000MW

Unit 1

Normal Max Output = 500MW
Max Metered Output = 495MW
Unit CEC = 515MW

Unit 2

Normal Max Output = 500MW
Max Metered Output = 492MW
Unit CEC = 515MW

Unit 3

Normal Max Output = 25MW
Max Metered Output = 0MW
Unit CEC = 30MW

- Connection Capacity Option 1: Unit CEC
 - Unit 1 = 515MW
 - Unit 2 = 515MW
 - Unit 3 = N/A

**Total Conn. Cap
1030MW**
- Conn. Capacity Option 2: Historic Output
 - Unit 1 = 495MW
 - Unit 2 = 492MW
 - Unit 3 = N/A

**Total Conn. Cap
987MW**
- Conn. Capacity Option 3: TEC Pro-Rata
 - Unit 1 = 500MW
 - Unit 2 = 500MW
 - Unit 3 = N/A

**Total Conn. Cap
1000MW**

Determining Connection Capacity

Distribution Connected Generating Units

Option 1

Unit Level
Registered Capacity
as set out in the
appropriate
Connection
Agreement

Option 2

Average of three
highest metered
outputs of the
generating units in
previous 24 months

Option 3

The Maximum
Export Capacity
(MEC) of the Power
Station split across
all the generating
units at the Power
Station pro-rata but
no more than the unit
level capacity figures

Connection Capacity Worked Examples

Single Generating Unit @ Power Station

Power Station B

MEC = 150MW

Unit 1

Normal Max Output = 150MW

Max Metered Output = 145MW

Unit Gen Cap = 150MW

- Conn. Capacity Option 1: Registered Capacity
 - Unit 1 = 150MW
- Conn. Capacity Option 2: Historic Output
 - Unit 1 = 145MW
- Conn. Capacity Option 3: MEC Pro-Rata
 - Unit 1 = 150MW

Connection Capacity Worked Examples

Two Generating Units @ Power Station – both Opt-In

Power Station B

MEC = 200MW

Unit 1

Normal Max Output = 150MW
Max Metered Output = 145MW
Unit Gen Cap = 150MW

Unit 2

Normal Max Output = 50MW
Max Metered Output = 49MW
Unit Gen Cap = 50MW

- Conn. Capacity Option 1: Registered Capacity
 - Unit 1 = 150MW
 - Unit 2 = 50MW
- Conn. Capacity Option 2: Historic Output
 - Unit 1 = 145MW
 - Unit 2 = 49MW
- Conn. Capacity Option 3: MEC Pro-Rata
 - Unit 1 = 150MW
 - Unit 2 = 50MW

Connection Capacity Worked Examples

Two Generating Units @ Power Station – Only Unit 1 to Opt-In

Power Station B

MEC = 200MW

Unit 1

Normal Max Output = 150MW
Max Metered Output = 145MW
Unit Gen Cap = 150MW

Unit 2

Normal Max Output = 50MW
Max Metered Output = 49MW
Unit Gen Cap = 50MW

- Conn. Capacity Option 1: Registered Capacity
 - Unit 1 = 150MW
 - Unit 2 = N/A
- Conn. Capacity Option 2: Historic Output
 - Unit 1 = 145MW
 - Unit 2 = N/A
- Conn. Capacity Option 3: MEC Pro-Rata
 - Unit 1 = 150MW
 - Unit 2 = N/A

Unit-level pro-rata cap applies to Unit 1

Determining DSR Capacity

DSR CMUs

Proven DSR Capacity

The Proven DSR Capacity evidenced by a DSR Test Certificate obtained prior to the Prequalification Window

Unproven DSR Capacity

The Applicants reasonable estimate of the DSR Capacity that will be evidenced by a DSR Test carried out after the award of any Capacity Agreement

Determining DSR Capacity

Interconnector CMUs

Transmission Entry Capacity

The Transmission Entry Capacity figure quoted in the relevant
Bilateral Connection Agreement

Determining De-rated Capacity

- Schedule 3 of the Capacity Market Rules sets out the Generating Technology Classes which determine the de-rating factor to be applied to the Connection Capacity.
- Values for each de-rating factor are given in the Auction Guidelines.
- A CMU can be made up of multiple generation units, where all such units are the same type of CMU.
- A CMU could be comprised of different generation technologies
- The de-rating factor applies to the components of CMUs
- At Prequalification, Applicants specify the generating technology class of each component.

De-rated Capacity Worked Example

<i>CMU Component</i>	Technology Class	Connection Capacity Methodology	Connection Capacity	De-rated Capacity
CMU Component 1	Coal	CEC	500	438.2

Connection Capacity	500 MW
De-rated Capacity	438.2 MW

De-rated Capacity Worked Example

<i>CMU Component</i>	Technology Class	Connection Capacity Methodology	Connection Capacity	De-rated Capacity
CMU Component 1	Coal	CEC	500	438.2
CMU Component 2	Coal	Historic Output	483	423.3

Connection Capacity

500 + 483 = 983

De-rated Capacity

438.2+423.3 = 861.5

De-rated Capacity Worked Example

<i>CMU Component</i>	Technology Class	Connection Capacity Methodology	Connection Capacity	De-rated Capacity
CMU Component 1	Coal	CEC	500	438.2
CMU Component 2	Coal	Historic Output	483	423.3
CMU Component 3	OCGT	Historic Output	67	62.72

Connection Capacity

$$500 + 483 + 67 = 983$$

De-rated Capacity

$$438.2 + 423.3 + 62.72 = 861.5$$

Agenda

National Grid Prequalification Assessment

National Grid Pre-Qualification Assessment

- **Items that National Grid will be focussing on in the 6 week Application assessment period**
 - Ensure that all of the required Additional Information has been submitted by the Applicant
 - Check that a Generating CMU is not a Defaulting CMU or an Excluded CMU
 - Verify that the three highest metered output figures provided by an Existing Generating CMU are accurate
 - That the Connection Capacity figure – if calculated – has been done so in accordance with the Rules
 - That any documentary evidence provided corroborates the statements made in the application – e.g. Low Carbon Support does expire by the date stated
 - that no other application has been submitted in respect of the generating unit(s) or MPAN(s) in a CMU

National Grid Pre-Qualification Assessment

- **Items that National Grid will NOT be focussing on in the 6 week Application assessment period**
 - Whether the Applicant is the legal owner or despatch controller
 - That any declarations made by an Applicant are indeed truthful – e.g. planning consents, no disclosure of Confidential Information, compliance with Bribery Act, no receipt of Low Carbon Support etc
 - That any documentary evidence provided alongside the application is genuine

Pre-Qualification Results Day

- **National Grid will provide a notification to each party that submitted an Application informing them if they were successful or otherwise by 5pm on pre-qualification results day. It will contain:**
 - Whether the unit has prequalified, and if it has
 - The De-rated capacity of the CMU
 - If New Build or Unproven DSR or if TEC deferred that Prequal status is provisional pending Credit Support
 - If Planning Consents deferred that Prequal status is provisional pending declaration that Consents obtained
 - That the CMU is a Price-Taker if Existing Generating CMU or an Interconnector CMU, Price-Maker if otherwise
 - The maximum period the CMU may bid for a Capacity Agreement
 - Whether the CMU is a Transmission CMU, a CMRS Distribution CMU, a non-CMRS Distribution CMU, an Interconnector CMU or a DSR CMU

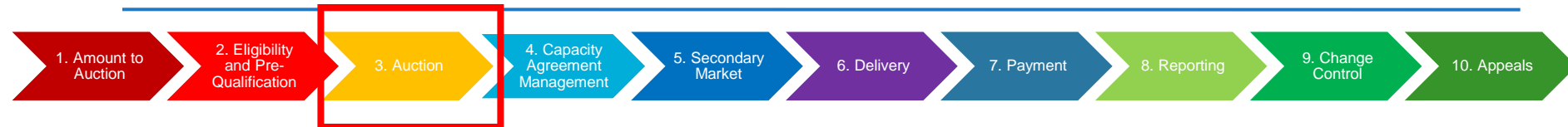
Pre-Qualification Results Day

- **National Grid will provide a notification to each party that submitted an Application informing them if they were successful or otherwise by 5pm on prequalification results day. It will contain:**
 - If a generating CMU, whether the CMU is an Existing CMU, a New Build CMU or a Refurbishing CMU
 - Whether a Metering Test will be required in the event the CMU successfully bids for a capacity agreement

Capacity Market - Auction

EMR – Auction Team

Capacity Market - Auction



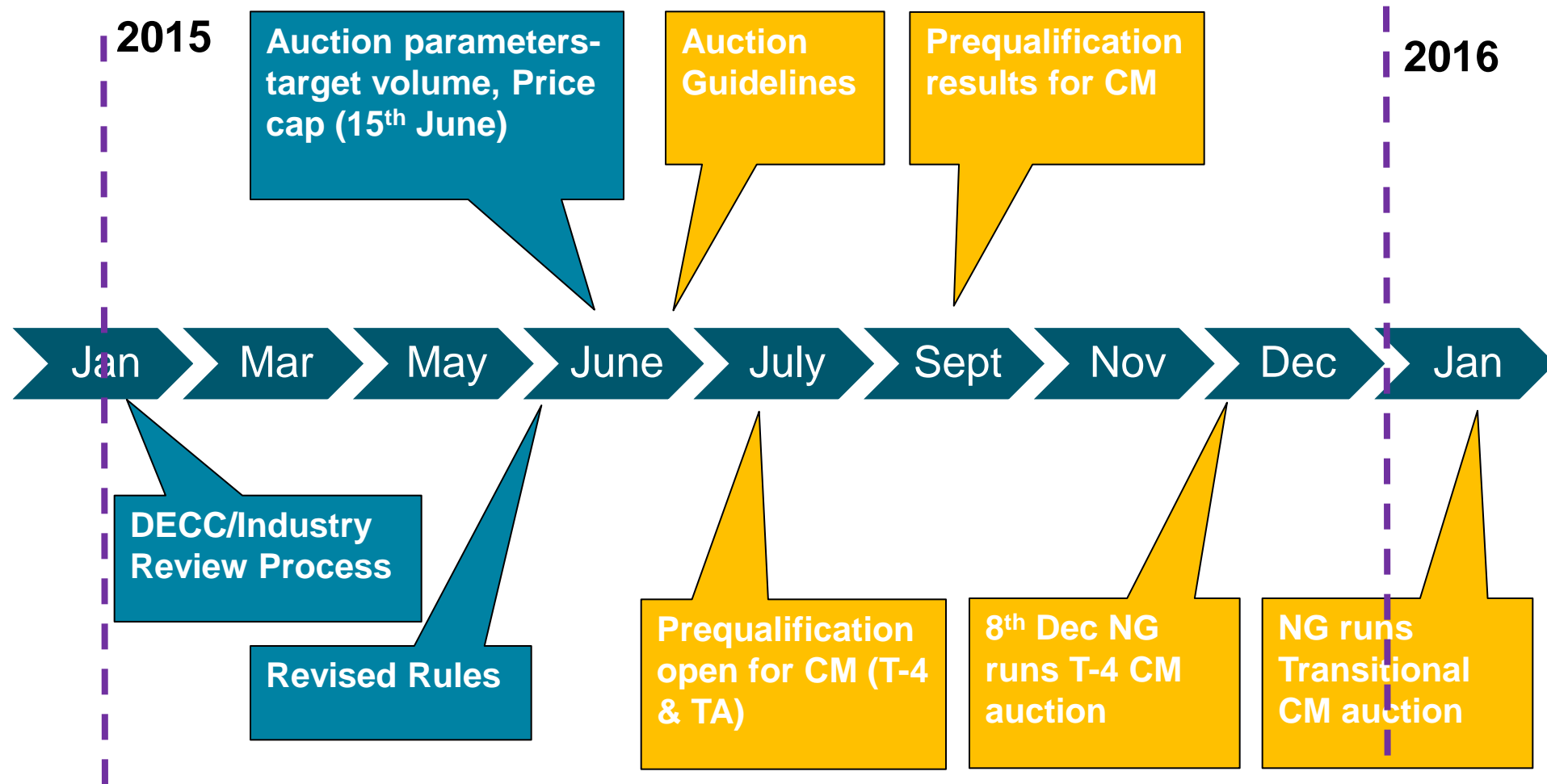
Auction Background

- Timeline
- Demand/ Supply
- Auction Parameters
- Chapter 5 CM rules clearing
- Terminology

Auction Demo

Overview of 2015 Capacity Market process

nationalgrid



Timeline 2015 (as per project plan)

2016

Pre-qual results
Results-
25th Sep (T-
4/TA)

Auction
Demo

T- 10 Price-Maker
decisions and
decisions under
Rules 5.5.11 and
5.5.13 (2nd Dec)

Auction
8th Dec
26th Jan

Auction
8th Dec
26th Jan



Screen casts

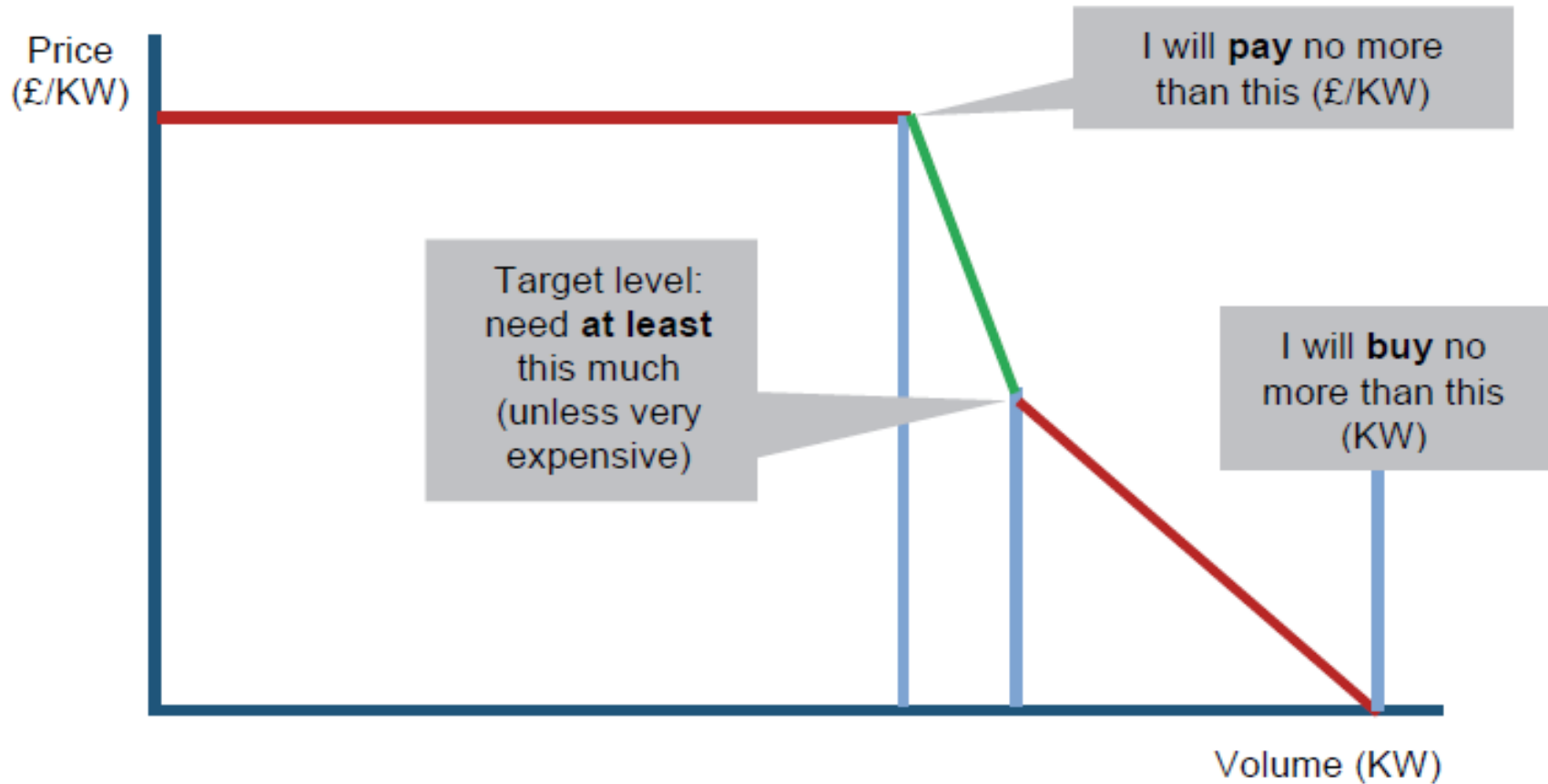
User Guide

Auction system User
training
(various dates)

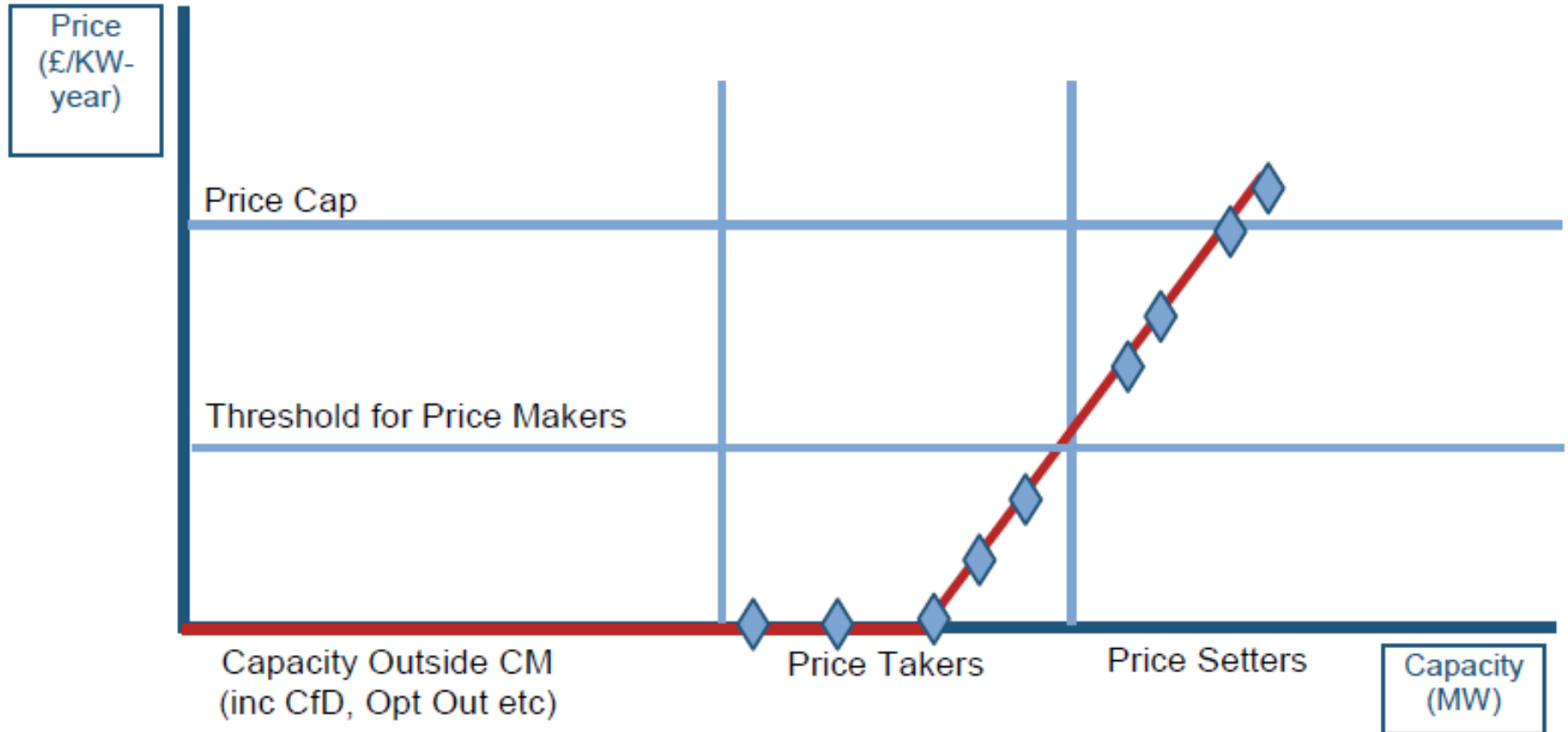
Mock Auction
25th Nov
13th Jan

Mock Auction
25th Nov
13th Jan

Demand Curve



Supply Curve



Auction System

- Descending clock, pay as clear, multiple fixed rounds
- First round starts at the price Cap
- Each round has a fixed price spread
- Runs across multi rounds until demand is met by the supply- this final round is the Clearing round
- If clearing capacity met by multiple units - decided by ranking (size, duration, random number)
- If clearing capacity not met exactly then clearing algorithm used (Customer Welfare Algorithm)

Auction System Testing

- The auction specifications derived from the Electricity Regulations and the Capacity Market Rules.
- IBM and National Grid to created models based on Chapter 5 independently ensuring the system design is consistent with the auction rules.
- Auction Monitor will build a shadow model to test above
- In total the system is tested against 25 clearing scenarios and 300 functional tests as well as substantial penetration, performance and volume testing.

Auction System

- Eligible participants who do nothing at auction will get an agreement at the clearing price
- Exit bid takes you out of the auction (unless your exit bid is equal less clear price)
- Duration Bid amendment used to change agreement length (to 1 year)
- Duration Bid amendment used to change from Refurb to Pre-refurb

Access to the auction system

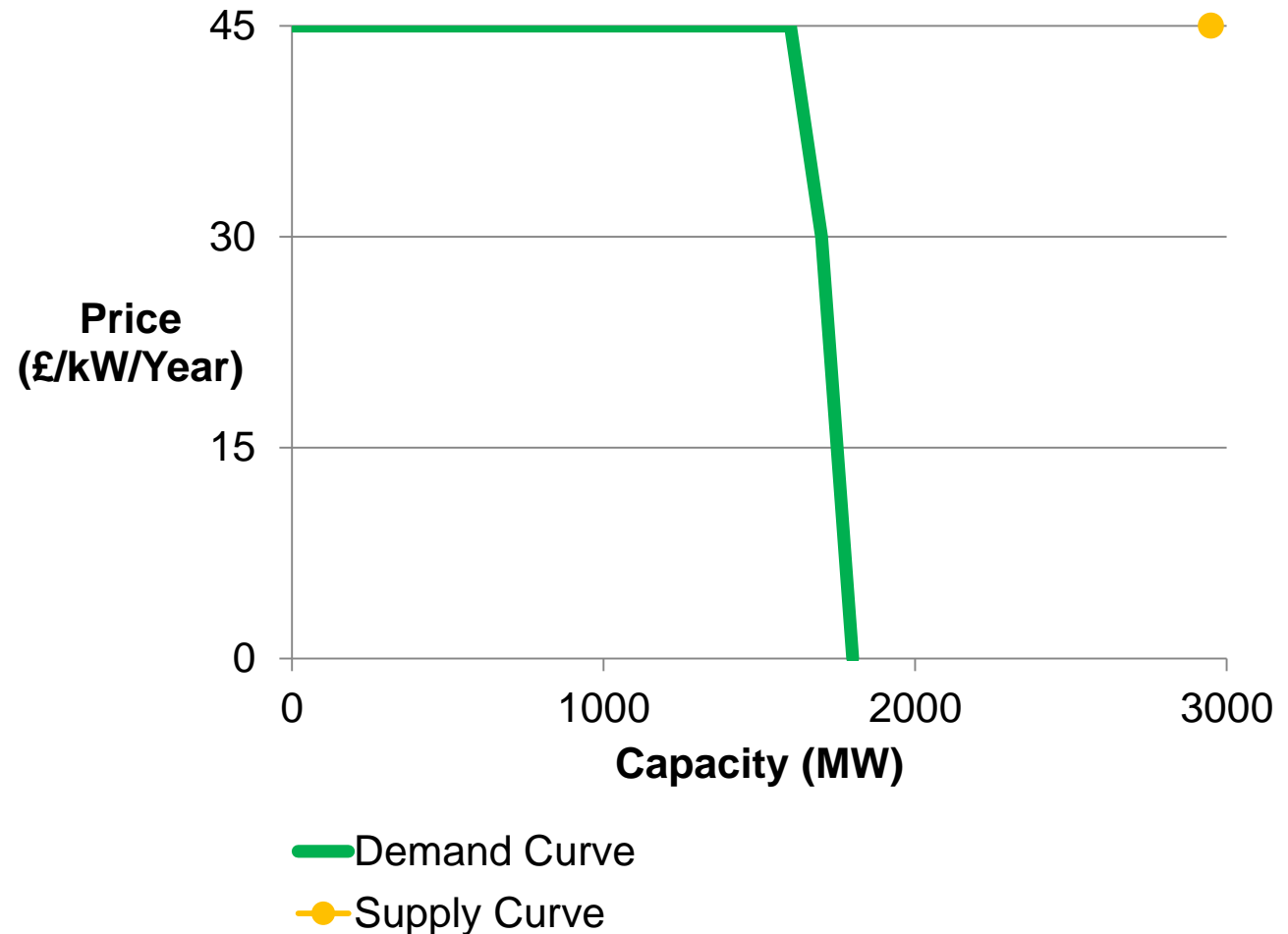
- No software to download
- Uses an ordinary browser.. with the right settings
- Reliable internet access required
- Auction system runs on a secure site hosted in the UK
- Authorised Individuals invited to obtain a password and PIN
- Simple intuitive interface
- Accessible from T-9 to check your CMUs

System Demonstration

Paul Rowe-Jones

Our 'mini' Auction

- We will start at £45/kW and drop the price over three rounds.
- We have a target capacity of 1700 (± 100) MW.
- 2950 MW has prequalified.
- Units are "in" by default and will submit "Exit Bids" - The lowest priced units will be accepted.



Bidders and Units in our Mini Auction:

Bidding Company Name	CMU ID	CMU Name	Classification	Capacity (MW)	Duration (yr)	Pre-Refurbishment Capacity (MW)
Big Power Co.	SHINY1	Shiny New CCGT	New Build Generating CMU	600	15	
Big Power Co.	OldGas	Old Gas Burner	Existing Generating CMU	800	1	
Little Power Co.	LonDSR	City Demand	Proven DSR CMU	50	1	
Little Power Co.	OCPeak	OCGT Peaking Plant	Existing Generating CMU	200	1	
Really Big Utility Co.	LstLeg	Old Gas Needs Work	Refurbishing CMU	650	3	500
Really Big Utility Co.	GLEAM1	Gleaming New Power Station	New Build Generating CMU	650	15	

Our Results:

Bidding Company Name	CMU ID	CMU Name	Classification	Capacity (MW)	Duration (yr)	Pre-Refurbishment Capacity (MW)	Exit Bid Price (£ / kW)	Clearing Price
Big Power Co.	SHINY1	Shiny New CCGT	New Build Generating CMU	600	15		43	
Big Power Co.	OldGas	Old Gas Burner	Existing Generating CMU	800	1			20
Little Power Co.	LonDSR	City Demand	Proven DSR CMU	50	1		20	20
Little Power Co.	OCPeak	OCGT Peaking Plant	Existing Generating CMU	200	1			20
Really Big Utility Co.	LstLeg	Old Gas Needs Work	Refurbishing CMU	650	3	500	32 (To Pre Refurb) 21 (Exit)	
Really Big Utility Co.	GLEAM1	Gleaming New Power Station	New Build Generating CMU	650	15			20

Our Results

	Our "mini" Auction	The Real Auction
Capacity Procured	1700 MW	49,259 MW
Price	£20 / kW / year	£19.40 / kW / year
Total Cost	£34m	£956m
Number of units receiving an agreement	4 out of 6	306 out of 410
Number of Companies with agreements	3 out of 3	46 out of 66
Type of Capacity Procured	A Mix of Existing, New and DSR.	A Mix of Existing, New and DSR.
Auction Duration	2 rounds in 10 minutes	12 rounds in 3 days

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- DECC Stakeholder Bulletins
 - contact Harry Bannister harry.bannister@decc.gsi.gov.uk

 - National Grid
 - Portal <https://emrdeliverybody.com>
 - Mail list emr@nationalgrid.com
 - Helpline 01926 655300

 - Date of Next Event – 19 May 2015 at the Charing Cross Hotel