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Climate Change

Capacity Market - Specification

Policy Team Synthesis

Capacity Market Expert Group
3 April 2014



Process To Date

2010 – 2011

- EMR consultations and move towards a market wide mechanism.

2012

- Expert group established (April). 'Minded to' run the first auction in 2014. Energy Bill introduced.

2013

- Q1 – “Strawman” Baselined
- Q2 – Spending Review & Final Design Proposals
- Q2-Q4 – Collaborative Development (Implementation) and Industry Resolution
 - Operating Model Baseline
 - Implementation Plan Baseline
- Q4 – Energy Act and Delivery Plan
- Q4 – EMR Consultation and draft secondary legislation
- Q4 – Consultation on Consequential modifications to Codes and Licences and Energy Act

2014

- Q1 – Industry Co-Ordination Sessions
- Q1 – Settlement Body budget consultation



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Amount to Auction

Confirmed

- **The CM will open 2014 (subject to Parliament and State Aid)**
- **Reliability Standard & CONE** – 3 hours loss of load expectation per year; 47 £/kW-year
- **Demand Curve Methodology**

Update

- **Electricity Capacity Report** – to include an estimate of embedded generation
- **Price Cap** - £75/kW-year (Cleared HMG)

Next Steps

- NG Future Energy Scenarios and then to produce Electricity Capacity Report
- PTE scrutinise NG analysis and render independent advice to the SofS
- SofS determines the (preliminary) Demand Curve & Auction Parameters
- NG publishes Auction Guidelines & Pre-Qualification Begins
- SofS determines the final Demand Curve (taking account of pre-qualification)



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Pre-Qualification

Update

Confirmed

- **Market Power Mitigation #1* – Pricing Restrictions**
 - Existing resources default to Price Takers (exception unless memorandum lodged**)
 - New resources default to Price Makers
- **Market Power Mitigation #2*– Quantity Restrictions**
 - Resources De-Ratted centrally
 - (exception for DSR to nominate less**)
- **Market Power Mitigation #3* – Withdrawal Declarations**
 - Permanent/Temporary/Operational
 - All statements discoverable
 - False Temporary Declaration – Termination Event
- **Capacity Agreement Categories**
 - Existing/New/Refurbishment
 - Financial Spend Thresholds
- **Metering Pathways – Four pathway choices**

- **Nomenclature – Ethical Requirements now Prohibited Activities**
- **De-Rating Factors – Applied to Connection Energy Capacity (or Distribution equivalent) or average of 3 self-nominated Settlement Periods over the last 2-Years**
- **Price Maker Certificate Net-Go-Forward Costs Definition – “earnings” replaced by “risk adjusted...value of sales”**
- **May 2012 Definition of New CMU– Not commissioned by effective date of pre-qualification**
- **CMU Definition - Net Metering; Trading Unit; Boundary Point or sub 50 MW aggregate sites**
- **Eligibility - Excluded**
 - CMU encumbered by long-term STOR contracts (unless accompanied by offer to terminate 2018 only)
 - CMUs on low carbon support (self-certified)
 - Carbon Capture and Storage commercialisation
- **DNO Obligations – Role in Prequalification and Stress Events**
- **Collateral Instruments– Cash and LOCs (which can be rolling)**
- **“Head Count at T-10 days” – Last Chance for Opt-Out of Non Mandatory CMUs & DSR to nominate de-rating**
- **Conditional Pre-Qualification**
 - Perfect prudential security (DSR Bid Bond and TF1)
 - **[Final planning consent (2018 only)]**
- **Cancellation of Auction – SofS discretion**

*There is a general market manipulation proscription

**Means status of pre-qualification may change



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Auction

Confirmed

- **Reverse Auction**
 - Prospective CMUs make price offer to undertake the Capacity Obligation
- **Pay-As-Clear** - All successful CMUs paid the clearing price (£/KW-year)
- **Price Discovery by Descending Clock**
 - 'clock' is progressive price decrements
- **Refurbishment CMU and Pre-Refurbishment CMU**
 - On exit Refurbishment CMU re-entered as Pre-Refurbishment CMU
- **Conditions Subsequent: Termination Events**
 - Execution of Distribution Connection Agreement (T-1.5) or termination fee applies
 - Satisfactory attainment of milestones (T-2.5/T+1) or termination fees apply (supported by Independent Technical Expert)
 - Prove Un-Proven DSR (test or data) (T-1 month) – or forfeiture of bid bond
 - Satisfactory metering configuration (T-1.5/T-2 months)
- **Conditions Subsequent – Other**
 - Satisfactory completion of refurbishment works (T0) or Replaced by Pre-Refurbishment CMU

Update

- **Auction Monitor**
 - Role restricted to compliance (i.e. not bidder behaviour) and no right to request information
 - Renders a report to the SofS within 5 days
 - SofS has 5 days to annul the provisional provisional results
- **Bidding teams ring-fence requirement**
 - Removed
- **Price Duration Curves** – Powers to be taken to express preference for tenors
- **Clearing Algorithm** – Maximizing consumer welfare
- **Minimum Completion Milestone**
 - **T-0 payments start if >90% and adjusted anytime but frozen at T+1.5**
 - **T+1 (latest) <50% triggers cure**
 - **T+1 (latest) >50% payments start but frozen at T+1.5**
- **Additional Conditions Subsequent (for 2014 Only)**
 - **[Transmission Entry Capacity (T-1.5) or is an event of termination and termination fee applies]**



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Performance

Confirmed – Capacity Obligation Attributes

- **Nature - “Delivered Energy Model”**
 - Delivery energy/reduce demand commensurate with Dynamic (i.e. load following) Capacity Obligation let at Auction
- **Trigger – Stress Occurring + Warning Given**
 - Stress Event: automatic or manual
 - Warning: explicit or implicit (margins)
- **Adjusted by**
 - Load Following *ex-post* notified
 - Balancing Services position
- **Excepted By**
 - Invocation of BSC Contingency (Section G)
 - Deficiency of the Transmission or Distribution System
 - Fuel Security Code direction

Update

- **Progressive Performance Standard**
 - No self-nomination of de-rating factor (except DSR)
 - Base Payment for Capacity Obligation and Bonus/Penalty for Over/Under Delivery
 - BM/non-BM distinction removed
- **Penalty Rate** – Such that monthly cap reached in 4 hours (i.e. clearing price*200%/(12 months per year)/(4 hours)) or c. £3,000/MWh for £75/kW-year price cap
- **Over-delivery Rate** – Lower of penalty rate or quotient of annual penalty revenue (£) and total over-delivery volume (MWh)
- **Gas Deficit Emergency & Maintenance Windows** No allowance
- **Limitation on Liability**
 - No liability until warning in effect
 - Portfolio cap removed; Monthly (Soft) 200%/Annual (Hard 100%) Revenue Cap (Cleared HMG)
- **Demonstration/Testing Regime**
 - If a CMU fails to demonstrate performance on 3 occasions in Winter then payments suspended (1 month minimum)
 - Testing requirement: 3 demonstrations (increased to 6 if CMU failed in 2 stress events in separate months)
 - DSR must nominate periods in advance



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Secondary Trading

Confirmed

- Dynamic Capacity Obligations originated at auction
 - ‘stapled’ to homogenous physical resources; and
 - optimally configured for peak conditions.
- Capacity Providers can self re-configure the set of Capacity Obligations provided that the same quantity and quality of physical performance can be assured
- Enables Capacity Providers (who are also participants in the energy market) arrange affairs and preserve the commitment and dispatch order.
- Risk management device for Capacity Provider
- The rules and processes to enable this have been variously referred to as ‘secondary trading’ or ‘secondary market’
- Government’s has a vital interest to enable by creating the necessary conditions, removing barriers and fostering liquidity.
 - Private Financial Trading anticipated
 - No Government led development of an organised market

Update

- **Nomenclature** – “Hybrid” and “Physical” trading now “Volume Re-Allocation” and “Obligation Trading”
- **Obligation Trading** – Entrant an “Empty Vessel”
 - Clip size **1 [month/day]**
 - Testing requirement maybe amended
 - Under-delivery levied from highest to lowest penalty rate
 - Over[-delivery paid at the weighted average.
- **Volume Re-Allocation**
 - Ex-post notified (11-19 days)
 - Limited by Over-Delivery Volume

Next Steps

- HRMC considering VAT and Stamp Duty Issues with Obligation Trading



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Settlement

Confirmed

- **Supplier levy a form of taxation** – awaiting confirmation by Office of National Statistics
- **Payment to Capacity Providers** – Weighted by GB electricity demand over preceding 3 years
- **Delivery Year** – 1st October to 30th September
- **Public Money** - Regulations setting out the tax to be collected for every Delivery Year will be laid before Parliament

Next Steps

- Awaiting ONS formal classification

Update

- **Nomenclature**
 - Settlement Agent re-named Settlement Services Provider.
- **Settlement Body Incorporate – T/A** Electricity Settlements Company
- **Settlement Agent Removed** – Activities re-assigned to the Settlement Body
 - Contract for service to be put in place between SB and Service Provider
 - SB and CfD Counterparty Body to share services
- **Billing Determinants** – Energy consumed 4-7pm weekdays during Winter (Nov-Feb) i.e. aligned with TNUoS
- **Settlement Body Levy** – To be collected on a fiscal year basis starting Sept 2014 (but will be invoiced in arrears Jan 2015)

Appeals

Confirmed

- **Tiered Disputes**

- Tier 1 – Disputant and National Grid
- Tier 2 – As above including the Authority
- Tier 3 – As above at Court

- **Grounds of Dispute**

- Termination
- Prequalification
- Entries in the CM Register
- Entries on the CM Notice

Update

- **Nomenclature** – Appeals now “Dispute Resolution”

- **Clarifying** – the content of an application to the Authority

- **Process Requirements**

- Ensuring that Tier 1 complete before Tier 2 can start and ditto for Tier 3
- Tier 3 restricted to matters of law

- **Timelines** – non-legally binding timeline to be set out Ofgem guidance

Next Steps

- Ofgem preparing guidance on Dispute Resolution



Scheme & Auction Parameters

Auction Parameters

- **Price Cap** – £75/kW-year (confirmed for T-4 for 2018)
- **NetCONE/Price Maker Threshold** - TBD
- **Total Target.T-1 Target/T-4 Target** - TBD
- **Base Year for Indexation** – For T-4 2018 bids to be made in 2012 money and indexed to Delivery Year
- **Decrements** - 4 rounds/day; 4 days - £5/kW-year
- **Surplus Report** – To Nearest 100 MW
- **Price Duration Curve** – Dis-applied for T-4 for 2018

Scheme Parameters

- **Demand Curve Methodology**
- **Thresholds per MW of De-Rated Capacity**
 - New Generating CMU - £250
 - Refurbishment CMU - £125
- **Milestones (New Generating CMU)**
 - Financial Commitment – Spend/Commitment Minimum at T-2.5
 - Substantial Completion – By Long-Stop Date (T+1)
- **Milestones (Refurbishment CMU)** – Works completed by T0
- **Termination Fees**
 - TF1 **[£15/kW]**
 - TF2 £25/kW
- **X of Y for DSR Baseline**
 - 11/14 SP over previous 6 weeks (non/working days)
 - “Day-Of” Adjustment
- **Maximum Capacity Agreement Lengths**
 - Existing: 1 Year
 - Refurbishment: 3 Years
 - New: 15 Years ((Cleared HMG))

Governance & Change Control

Confirmed

- **Status of Capacity Agreements**
 - Not private law contract
 - Statutory rights and obligation conferred by Regulations & Rules
 - Regulations provide for run-off
- **Capacity Market Register**
 - Price (£/kW-year) and Term (Years)
 - Identification Delivery Years
 - Capacity Obligation (MWh)
 - Capacity Price (£/kW-year)
- **Consultation on Rule Changes**

Update

- **Objectives for Rules** -Additional to Ofgem's principal objective ("to protect interests of consumers ...by promoting competition..") the Rules must
 - Promote investment in capacity to ensure security-of-supply
 - Facilitate efficient operation of the CM
 - Ensure the compatibility of CM Rules with the EMR legislation
- **Grandfathering provisions for Key Terms**
 - Milestone Dates (dd/mm/yr) & Termination Fees (£/kW)
 - Monthly (£) & annual (£) revenue caps
 - In addition to key terms already in CM Register

Next Steps

- Ofgem preparing guidance on Rule Changes

Breach and Events of Default

Confirmed

- **Termination Events/Default**
 - Insolvency
 - General Eligibility Criteria
 - Certain Conditions Subsequent:
 - Generating when temporarily opted out
 - Prohibited Activities
 - Failing to maintain TEC (where TF2 applies)
- **Termination for convenience**
 - Conversion to Biomass
- **“Firebreak” – Termination effective after notice of 60 working days**
 - Termination effective unless withdrawn in 60 working days
 - SofS has discretion to direct withdrawal of termination notice

Update

- **SofS enhanced discretion**
 - Extend firebreak (once) by 60 working days
- **Right of representation to SofS**
 - Seek withdrawal of a termination notice
 - Seek extension (exception generating when opted out and engaging in Prohibited Activities)
 - Within 20 working days with reasons and cure plan
- **Special Provisions for Minimum Completion at Long-Stop**
 - Default at T+1 triggers 120 working day cure period
 - Milestone met or termination notice issued

DSR and DSR Transition

DSR Transition Arrangements

- **Commencing Delivery Year 2016/17**
- **Powers taken**
- **Single auction product**
 - *ex-post* election for time banded (9-11am and 3-7 pm) or load following
- **Penalties/Over-Delivery** – as enduring scheme
- **Exclusion** - Any resource who has or had a CM Agreement
- **Bid Bond** – 10%

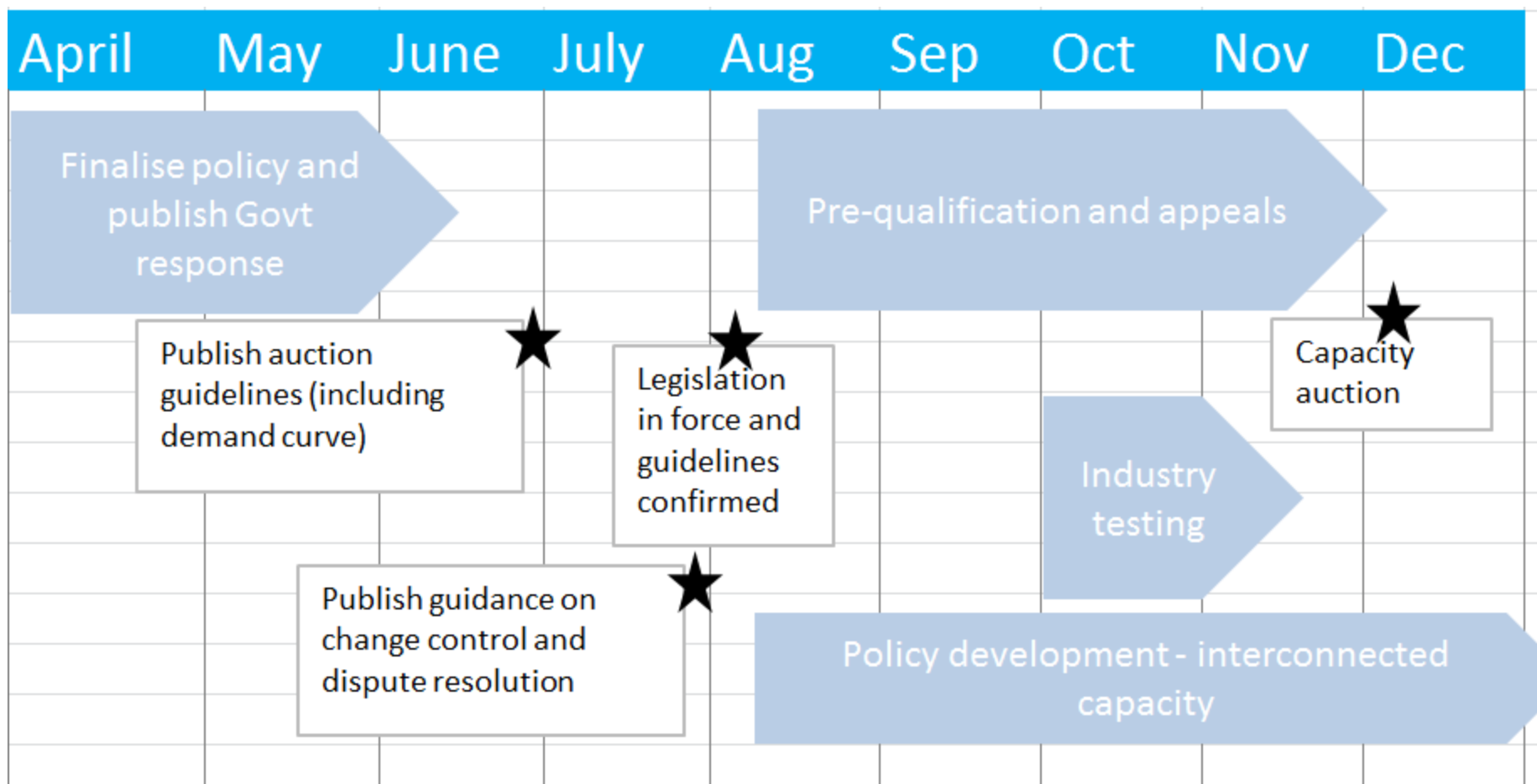
DSR

- **Nomenclature** – CDR renamed DSR
- **DSR Bid Bond**
 - [£5/kW]
 - Forfeit if fail to prove $\leq 90\%$
 - Pro-rata forfeit from $>90\%$ - $<100\%$
- **On-Site Generation Participation**
 - Can enter as DSR or Generation (subject to satisfactory metering solution)



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Next Steps





- **Rules and Regulation Amendments – March 2015**
 - Metering Pathways
 - Interconnection and RoW resource participation (Frontier Economics appointed)
- **Price Duration Curves**
- **Review Policy**
 - Ofgem Annual operational review
 - DECC Annual Refresh to the Delivery Plan (5-Year Major Updates)
 - DECC 5-Year existential review & Market Failures (building on separate Ofgem review)
- **Secondary Market Functioning**
 - Ofgem Retail Market Review
 - PPA liquidity
- **EDR Pilots (2015 & 2016) and Participation in CM (c. 2017 or 2018...)**
- **Stage 1 DSR Transition Arrangements**
 - For Delivery Year 2016/2017 & 2017/18



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Longer Term

Strategic

- **Decarbonisation**
- **Evolving /Industry and Business Models**
- **Route-to-Market**
- **De-politicisation**
- **Institutional Frameworks**

Routine

- **Capacity Market Warning**
- **Delivery Year – Fiscal Year vs Capacity Year**
- **Appeals**
- **Penalty and Testing Regime** Nomenclature & Ofgem Electricity Balancing SCR

Eligibility

- **Demand-Side Participation** - SMART Meters and SMART Networks
- **CfD Allocation to CfD Auctions**

Competition

- **Competition Referral**
- **Auction Monitor**
- **Market Power Manipulation – REMIT**

Structural

- **Nature of Legal Relations** - Statutory or contractual scheme
- **Tax and Spend or Regulation**
- **Two-Sided Auction**
- **CMSB - Contract Management Capability and Discretion**
- **Construction Monitoring – Client Engineer Approach**

EU Issues

- **Market Splitting –/Locational issues**
- **Internal Energy Market**
- **Capacity Remuneration Mechanism Harmonisation**
- **Network Codes**