

Programme



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Time	Topic	Presenter
13.30	Arrive and tea/coffee	
14.00	Welcome and Introductions	Jonathan Mills Director EMR
14.10	Contracts for Difference: an overview	Chris Hemsley Head CfD Design and Implementation
14.40	CfD contract terms overview	Matt Taylor CfD Design
15.25	Tea / coffee break	
15.55	CfD allocation process overview	Rob Epstein CfD Allocation
16.40	Next steps	Chris Hemsley Head CfD Design and Implementation
17.00	Close	



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Electricity Market Reform: *Contracts for Difference*

12 August 2013

Jonathan Mills

Director, EMR



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Chris Hemsley

Head, CfD Design & Implementation

Government's objectives for Energy Market Reform



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- The Government's energy and climate change goals are to deliver secure energy on the way to a sustainable, affordable, low-carbon energy future and drive ambitious action on climate change at home and abroad.
- This requires substantial investment in new generation and networks: £110 billion of capital investment in the decade to 2020 – this is like building 20 Olympic stadiums every year.
- To meet this challenge, we need to attract investment from a broad pool of investors, and support investment by a wide range of developers.
- The Contract for Difference (CfD) is the proposed instrument to attract this investment in low-carbon generation

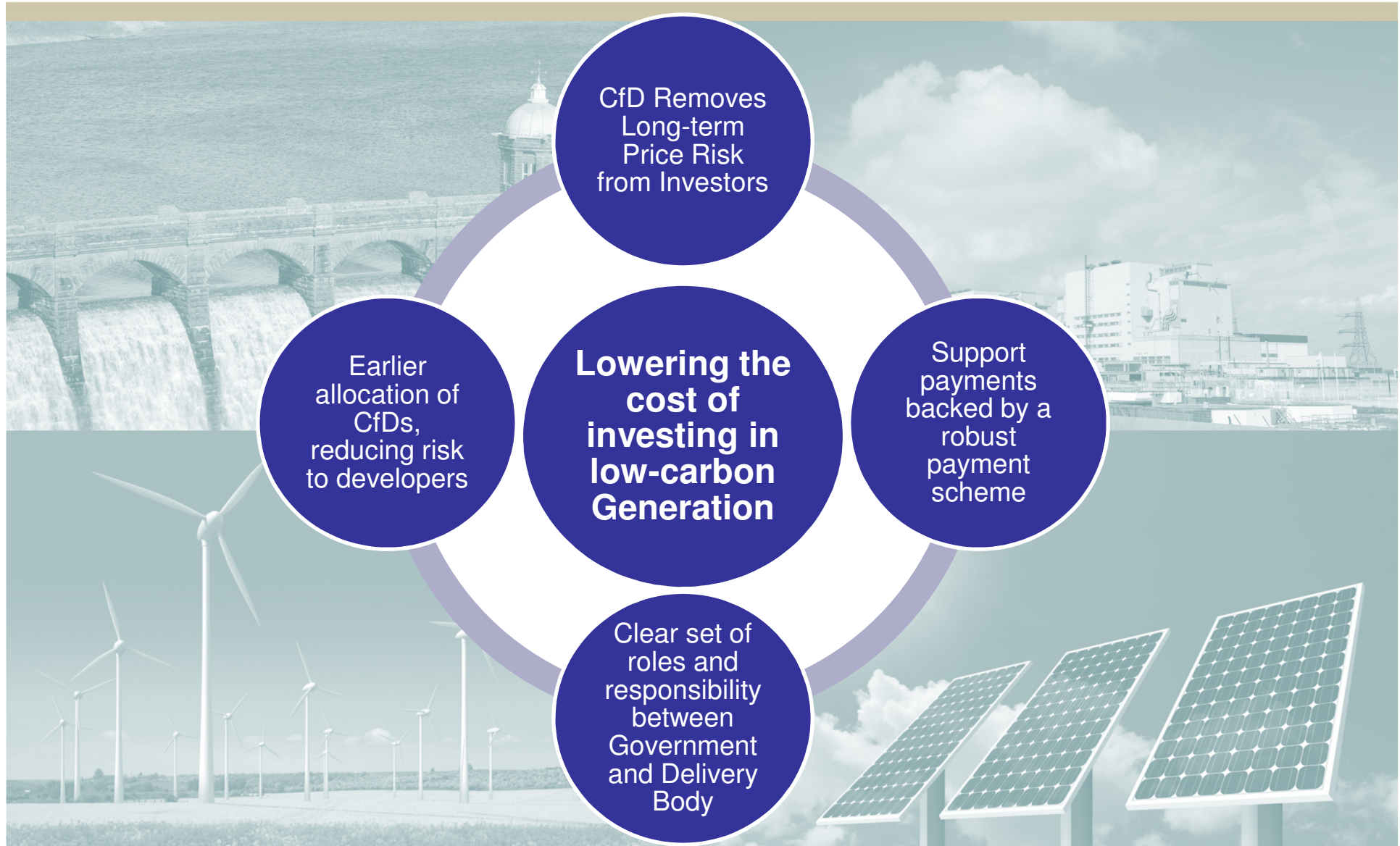


Contracts for Difference

Supporting Investment in Low-Carbon Generation



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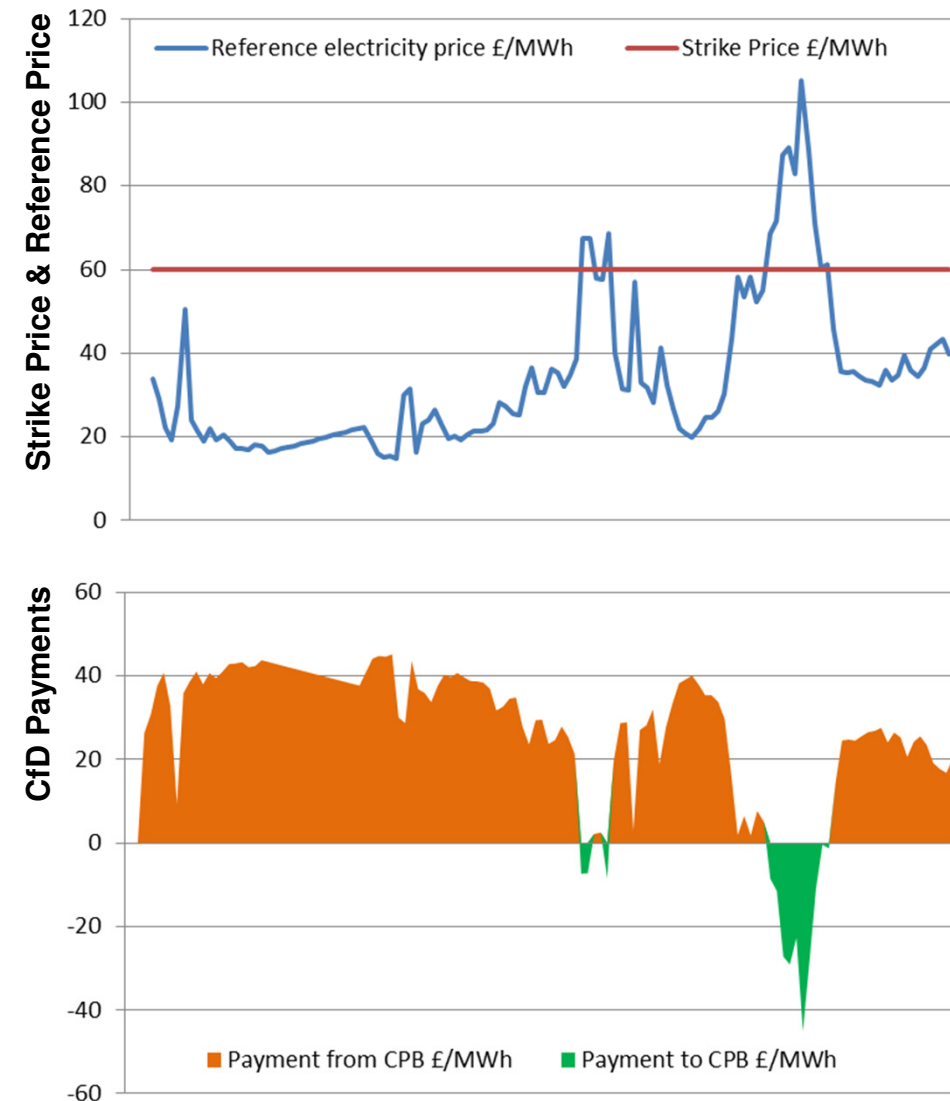
Contracts for Difference

Lowering the cost of investing in low-carbon generation



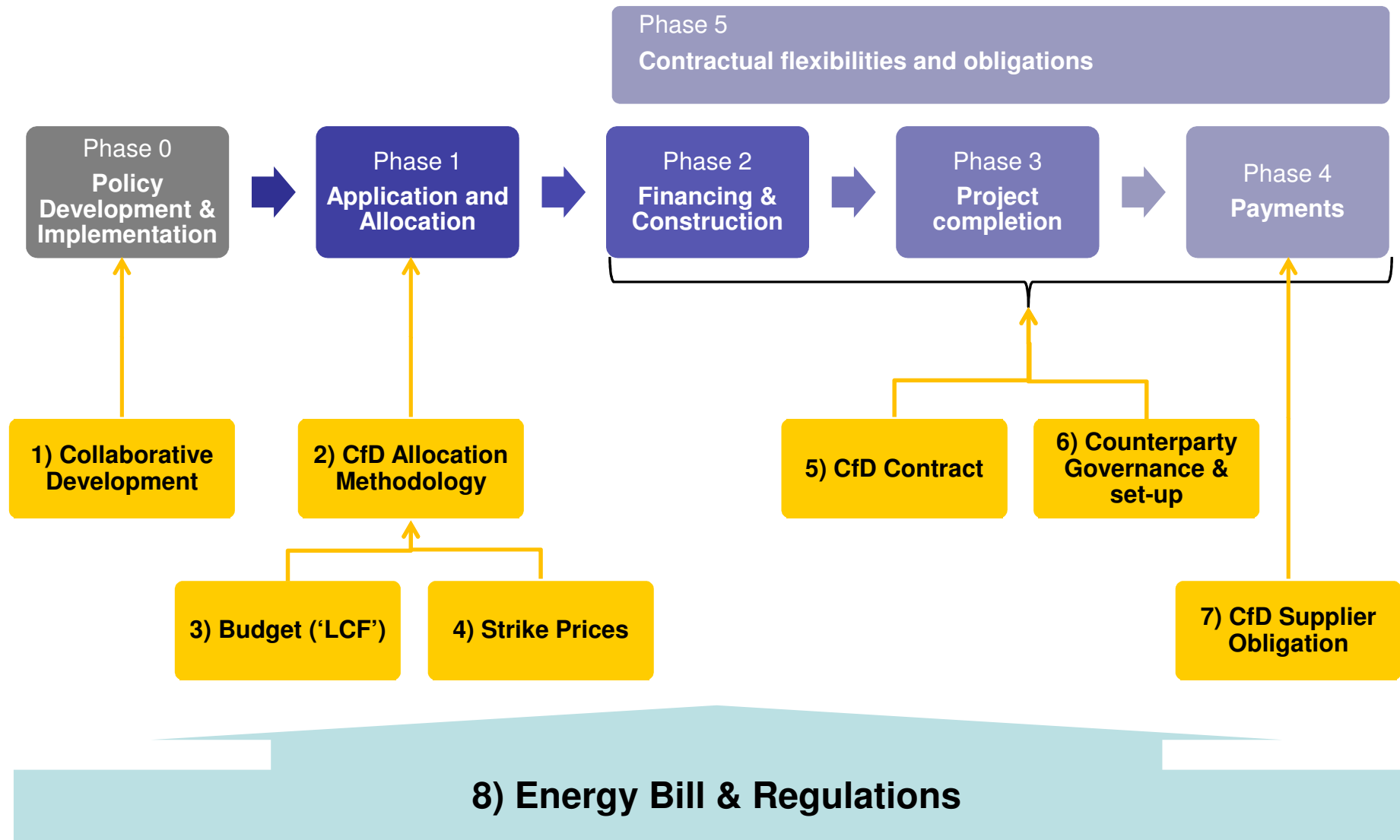
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- CfD pays a variable 'top-up' to developers, based on:
 - Strike Price: Estimate of the cost of investing in each technology
 - Reference Price: Measure of the average price of electricity
- Benefits of the CfD include:
 - Removes one of the largest commercial risks faced by developers
 - Maintains normal incentives to invest, innovate and operate at least cost
 - Developers pay back to consumers, when prices are high, keeping overall costs down



Implementation of Energy Market Reform

The components of the CfD Framework



CfD Contract Terms

Changes since November Heads of Terms



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What you told us	The changes we made to the CfD
Concern about the breadth of change in law	Cover for general changes with discriminatory effects, which lack objective justification. Protection against 'curtailment' without compensation and 'political shutdown'.
Concern that CfD exposes Generators to risks of changes to transmission charges	Cover for changes in certain transmission charges (BSUoS and TLM).
Termination likely to discourage investors / hair-triggers	Reduced termination events and introduced cure periods.
Index-linked payments	100% indexation to CPI
No claw-back / refinancing clauses	Confirmed that generic CfDs will not include clauses to claw-back gains.

CfD Allocation Methodology

Changes since November Operational Framework



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What you told us	The changes we made to the CfD
Developers need greater flexibility to vary capacity as project is refined	Greater flexibility, allowing up to circa 30% reduction in capacity, circa 10% at no cost.
Need for protection against unexpected events, beyond the developers' control	Force Majeure + Protection against grid delays + Protection against geological conditions
CfD needs to support phased commissioning	Phasing solution for offshore wind, with all phases receiving the Strike Price of the first phase.
CfD should support a wide range of technologies and generators	Continue to work on the detail of metering to support projects connected through the transmission, distribution and private wire networks.

Way Forward

Moving towards implementation



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1) Collaborative Development

- Joint working with Industry to ensure systems and processes are in place
- Steering Group established. CfD framework scheduled for September.

2) CfD Allocation Methodology

- Seeking views on phasing, flexibilities and implementation of rationing
- Detailed processes reviewed through Collaborative Development, leading to detailed business rules, in Sept/Oct 2013.

3 & 4) Budget and Strike Prices

- Draft Delivery Plan consultation on Strike Prices
- Deadline: 25 September 2013

5) CfD Contract

- Seeking views on the draft contract terms
- Requesting detailed mark-ups and completed templates by 2 September

6) Counterparty Set-up & Governance

- Set up led by DECC with Shareholder Executive
- Elexon designated as settlement agent- will work on behalf of the Counterparty. Update in Autumn consultation

7) CfD Supplier Obligation

- Collaborative Development
- Consultation on detailed proposals (Autumn)

8) Energy Bill & Regulations

- Bill expected to enter Lords Report in October (subject to Parliamentary programming)
- Consultation on Secondary Legislation expected in October



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Matt Taylor, CfD Design

Contracts for Difference



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- 45 minutes
- An overview
- Not going into the detail
 - A quick thank you
 - Balance of risk
 - Benefits of CfDs
 - Overview of Draft CfD Terms
- Questions

Getting this far has involved a range of stakeholders



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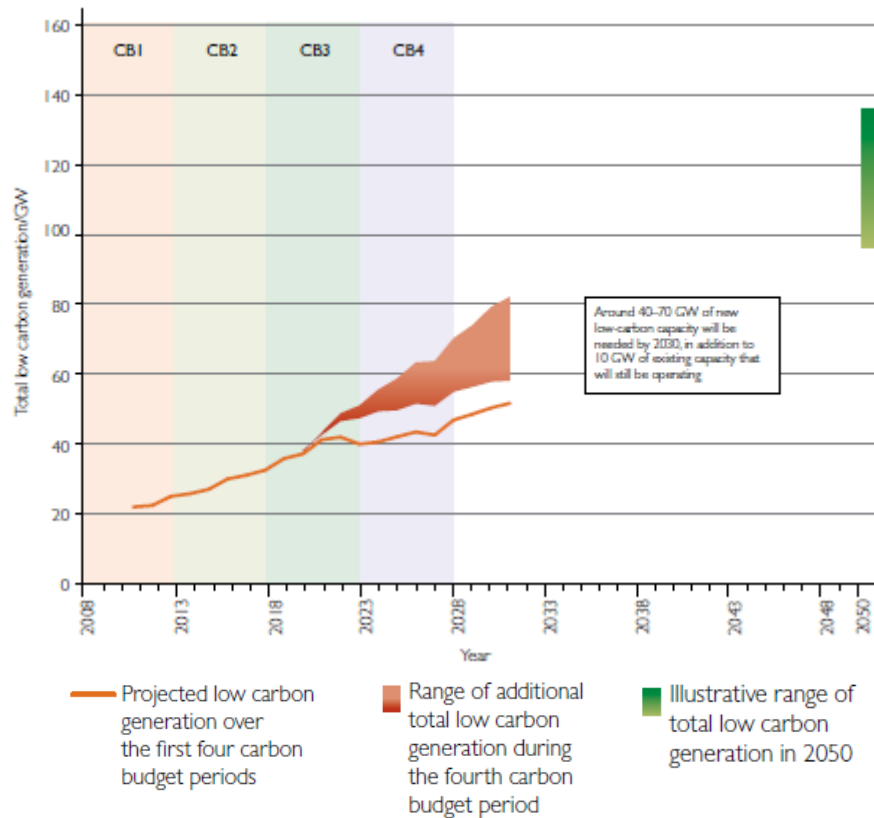


Quick reminder of what we are trying to achieve



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Carbon Plan 2011



- Decarbonisation, security of supply and affordability to consumers
- 2020 targets then 2050
- To meet these challenges an estimated additional 40 – 70GW of new low carbon capacity will be needed by 2030
- A lot of money
- Current market arrangement and incumbent investors are unlikely to be able to deliver the required investments

In structuring CfD been conscious of balance of risk; needs to be viewed in context of overall framework



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1

Removal of wholesale electricity price exposure by providing a fixed strike price to developers, therefore stabilising project revenue

2

Robust and reliable private law contractual arrangement providing developers with a clear set of rights and obligations, and recourse to arbitration and expert determination processes to resolve disputes

3

Robust single counterparty owned by government and set up as a limited liability company

4

Early certainty and security of support levels in the project development process

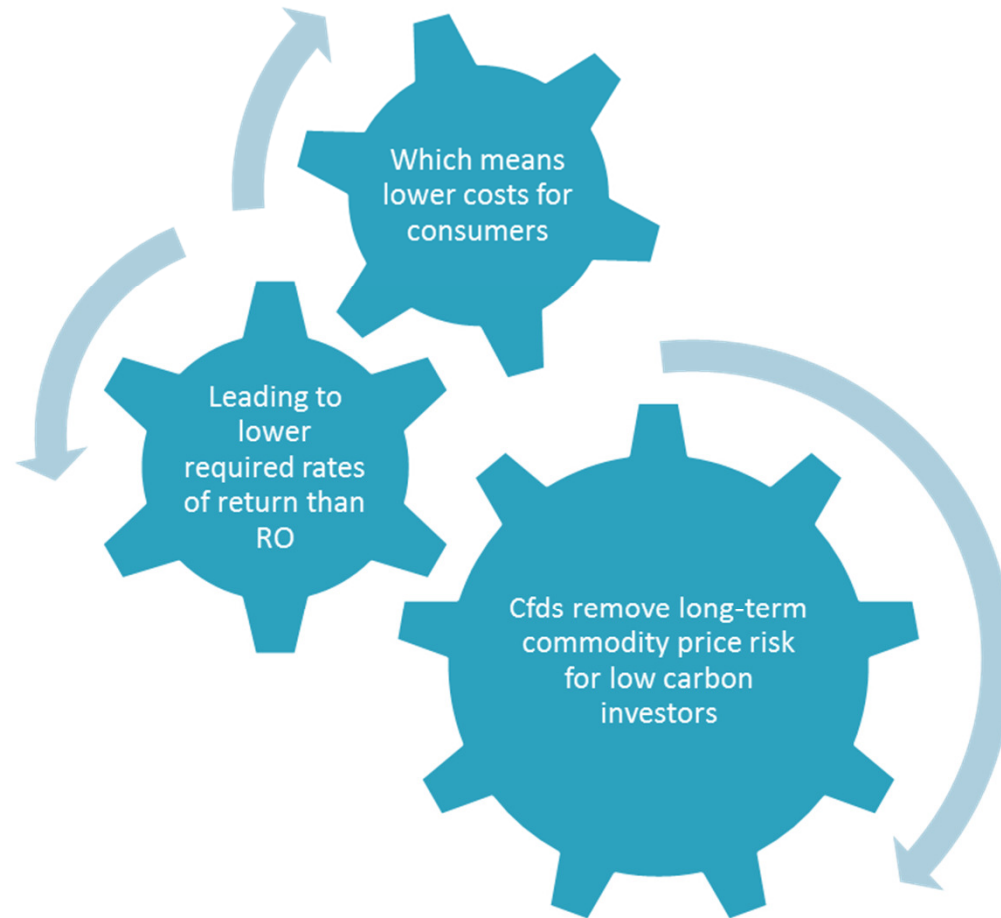
5

Provision of an element of **protection against those risks that are outside the developers control** (e.g. change in law risk, force majeure risk, risk of grid connection delay)

Benefits of Contracts for Difference



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Some comments following publication of June and August documents



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Removes uncertainty over the future direction of e.g. gas/carbon prices (Barclays)

Overall thrust generally positive for UK generators , CfDs could reduce price risk and earnings volatility, paving the way for higher leverage (BoAML)

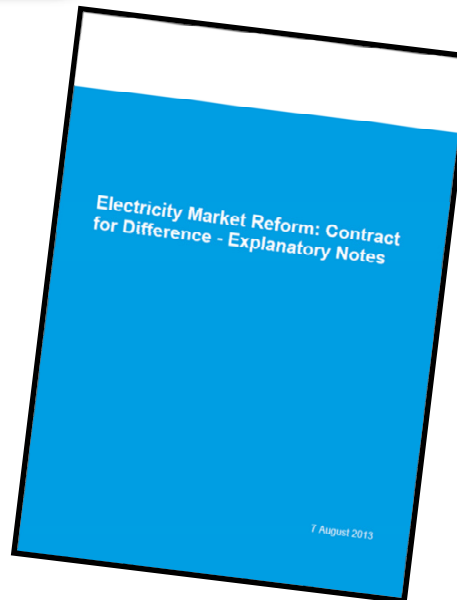
DECC have abandoned plans to try to claw back refinancing windfalls from project developers which we think is pragmatic and also increases the likelihood of more projects progressing (JPM)

CfDs will make it cheaper to deliver low-carbon generation by around £5 billion up to 2030 because they will deliver cost of capital reductions that cannot be achieved through existing schemes (Liberium)

So what did we publish?



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DATED [●]

Rectangular Snip

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as the GENERATOR

and

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as the CFD COUNTERPARTY

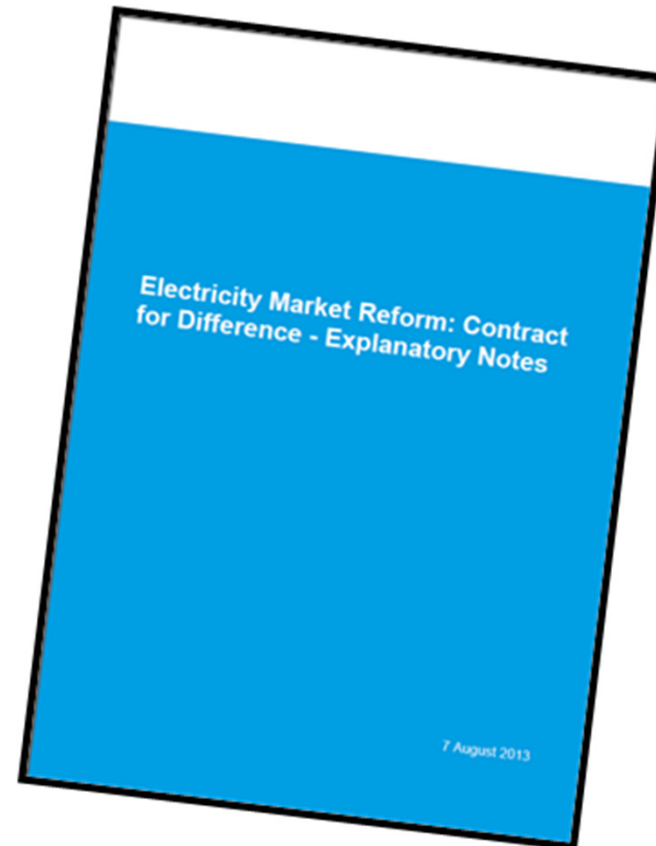
CONTRACT FOR DIFFERENCE

Explanatory notes



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- Explain the clauses
- Terms and definitions
- Contract mechanics
- Worked examples of formulae



Draft Contract for Difference



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- Full form drafting
- But continues to be developed
 - e.g. phasing of projects, impact on Term
- Metering
 - Indicative full form drafting
 - Arrangements for private wire
- Conditions Precedent
 - Technology specific CPs?
- Fuel Measurement and Sampling Agreement
- Market Reference Price

³ Note to Generator: These definitions are only applicable to FIT Contracts for Difference entered into in respect of facilities which deploy baseload generation technologies. DECC is giving further consideration to the manner in which EFA-related definitions are to be adjusted to take account of any future shift away from the EFA Calendar.

Draft CfD Terms



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Part	Subject	Part	Subject
Part 1	Introduction	Part 11	Change in Law
Part 2	Term	Part 12	Termination
Part 3	Conditions Precedent	Part 13	Credit Support
Part 4	Milestone	Part 14	Confidentiality, Announcements, Freedom of Information
Part 5	Metered Output, Market Reference Price, Strike Price	Part 15	Intellectual Property Rights
Part 6	Billing and Payment	Part 16	Dispute Resolution
Part 7	General Payment Mechanics	Part 17	General Provisions Regarding Liabilities, Remedies and Waivers
Part 8	Metering	Part 18	Miscellaneous
Part 9	Information Provision		Schedules and Annexes
Part 10	Representations, warranties and undertakings		

Conditions Precedent, Milestone and Capacity Adjustments (3), (4)



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- **Conditions Precedent**
 - Number of mechanical provisions
 - Generator notifying CPB
 - Reporting of CPs
 - Further CPs
 - Schedule 1- Conditions Precedent
 - Part B – Further Conditions Precedent
- **Milestone**
 - Evidence required to demonstrate substantial financial commitment
 - May be extended if caused by Force Majeure
- **Installed Eligible Capacity Estimate Adjustments**
 - Ability to adjust capacity estimate
 - SP may be reduced
 - **Relevant Geological Issue**

Metered Output, Market Reference Price and Strike Price (5)



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- **Metered output**
 - Includes computation for Renewable Qualifying Multiplier adjustment
- **Private wire**
 - Detailed drafting under development
 - Will set out the metered output definition and non-BSC Metering and Data Collection rules for private wire facilities
- **Market Reference Price**
 - Provides formulae for which baseload and intermittent reference prices are set
 - For baseload initially season ahead, intermittent, day-ahead
 - Developing procedures to allow for amendment of reference prices, where required, which will be as mechanistic as possible
 - Welcome input on how these procedures work
- **Strike Price**
 - Indexation - full indexation for inflation , CPI
 - Adjustments

Billing and Payment, General Payment Mechanics, Metering (6), (7), (8)



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- **Billing and Payment**
 - Timing of payments
- **General payment mechanics**
 - Default and compensatory interest
- **Metering**
 - Requirement to comply with on-going metering requirements
 - CPB can withhold payment and/or terminate for a generator's failure to comply with metering requirements

Information Provision (9)



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- From Agreement Date and monthly intervals thereafter:
 - Estimates of expected start date
 - Installed capacity at start date
 - Commissioning profile of facility
- Giving further consideration as to what requirements will be placed on the Generator
- Information needed to keep the CfD Counterparty informed.

Representations, Warranties and Undertakings (10)



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Representations, undertakings and warranties

Generator signing date representations

- Status
- Has power and authority to enter contract
- Enforceability
- Non-conflict with obligations
- Required authorisations
- Compliance with eligibility criteria
- No default
- No litigation
- Start date representation: ownership

Generator undertakings (apply on an on-going basis)

- Compliance with laws
- Required authorisations
- Industry documents
- No insolvency action
- Notification
- Ownership
- Eligibility criteria
- Key project documents
- Generation licence
- Termination payment



- **Provision against specific and discriminatory changes, even when introduced in a broader way;**
- **Clarification of what is deemed foreseeable;**
- **Additional protections for BSUoS, TLM and curtailment in certain circumstances**
 - **Discriminatory**
 - Applies only to project, facility or generator
 - **Specific**
 - Only to generation facilities which are the same or similar to the generator's facility
 - Only to CfD/investment contract facilities
 - Only to CfD/investment contract facilities which are the same or similar to the generators facility
 - **Other**
 - Has undue, discriminatory effect
 - Not objectively justifiable
 - Entitlements to compensation

Termination (12)



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- **Reduced complexity of Termination events**, compared to November, believe it represents proportionate approach to contract management
- For example
 - Breach of Undertaking was a Termination event
- **Now restricted to:**
 - Failure to meet milestone
 - Failure to fulfil Initial CPs by Agreement Date/ CPs by Longstop Date
 - Fraud
 - Insolvency
 - Breaching Metering Obligations
 - Non-payment
 - Breach of Key Obligations (Ownership etc.)
 - Credit Support Default
- And
 - Change in Law prevents construction
 - Change in Law permanently prevents operation



- **Credit Support**
 - Considering appropriate collateral mechanisms including the period of coverage, quality,
 - Permitted types and treatment of collateral.
 - But have included protection for payment disruption events
- **Confidentiality/Freedom of Information and Environmental Information Regulations**
 - Obligations on generator and CPB
 - CPB must comply with FOI requests
 - Generator to assist
- **Intellectual Property Rights**
 - Generator and CPB retain on IPR
 - But obligation to licence to each other IPR needed to conform with obligations

Dispute Resolution (16)



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'Standard'	Metering
<ul style="list-style-type: none">• English Law• All disputes resolved using the DR procedure• Resolution through discussions between senior employees/officers• Independent expert• Arbitration (x3), LCIA Rules• Consolidation of connected disputes	<ul style="list-style-type: none">• Separate dispute resolution process for metering• In relation to metered data and metered output• Intention is to use BSC disputes procedure



Force Majeure

- An event beyond reasonable control
- Reasonable and Prudent Operator test
- Applies to Generator's Representatives
 - Directors, officers, employees
 - Consultants and advisors
 - Contractors
- Gives relief from being liable for failure of, or delay in, performance of any obligation (other than payment) under the CfD



Limited Recourse

- Liability of CPB is limited
- Where CPB is prevented from meeting liability
- Due to what has been made available under the Supplier Obligation

Transfers

- CPB can transfer a CfD without generator's consent
- Or where CPB is assigning rights or benefits somewhere else
- Generator able to assign rights/benefits of CfD to bank/financial institution that is financing or refinancing the Generator
- Refinancing – no provisions to share gains from refinancing for most projects under the CfD

Schedules and Annexes



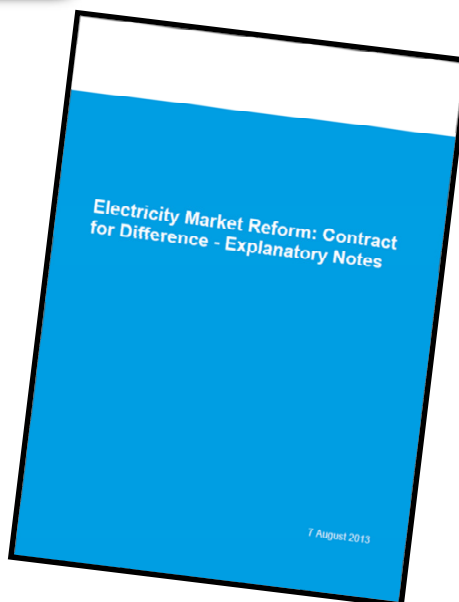
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Schedule /Annex	Subject
1	Conditions Precedent
2	Target Commissioning Window and Longstop Date
3	Termination Payment
Annexes	Various but contains Change Control Procedure

Questions



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CONTRACT FOR DIFFERENCE



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The CfD Allocation Methodology for Renewables

12 August 2013

Rob Epstein, CfD Allocation

Overview of Allocation System

Balancing risks to Government, developers and consumers

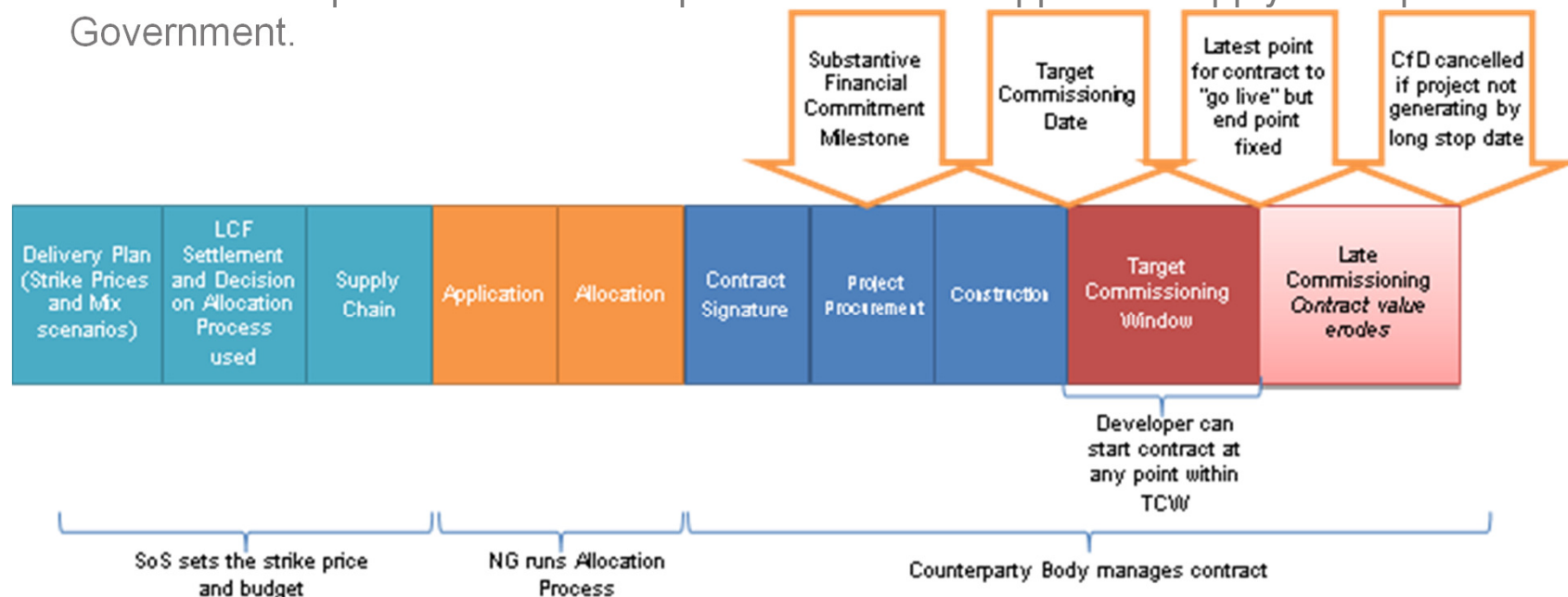


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Allocation Methodology describes the journey a developer must go through in order to secure and then retain a Contract for Difference (CfD).

Key changes set out in document:

- Time-periods for Target Commissioning Windows and Longstop Dates for each technology;
- Greater flexibility for developers to adjust the capacity of their project after securing a CfD;
- Approach to phased offshore projects, including the use of a single strike price; and
- Inclusion of requirement for developers to submit an approved supply chain plan to Government.



CfD provides Developers with a range of flexibilities

A balance between flexibility and incentives to deliver



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Risks	Flexibility Allowed
Uncertain Commissioning Date	<ul style="list-style-type: none"> - Target Commissioning Window - Can Commission outside of TCW, at a cost, and before Long Stop Date - Can nominate a later Target Commissioning Date
Late Commissioning	<ul style="list-style-type: none"> - Target Commissioning Window - Force Majeure provisions - Cover for delays caused by Grid Connection
Uncertain Commissioning Volume	<ul style="list-style-type: none"> - Circa 30% flexibility to reduce capacity - Circa 10% flexibility without cost, of which half must be exercised by SFC milestone
Unable to Commission Full Volume	<ul style="list-style-type: none"> - Retain 5% flexibility at commissioning - Further 20% flexibility (with Strike Price adjustment) - Can reduce capacity, without penalty, in light of certain Geological issues

Target Commissioning Windows & Longstop Dates

Mitigating risks of late delivery

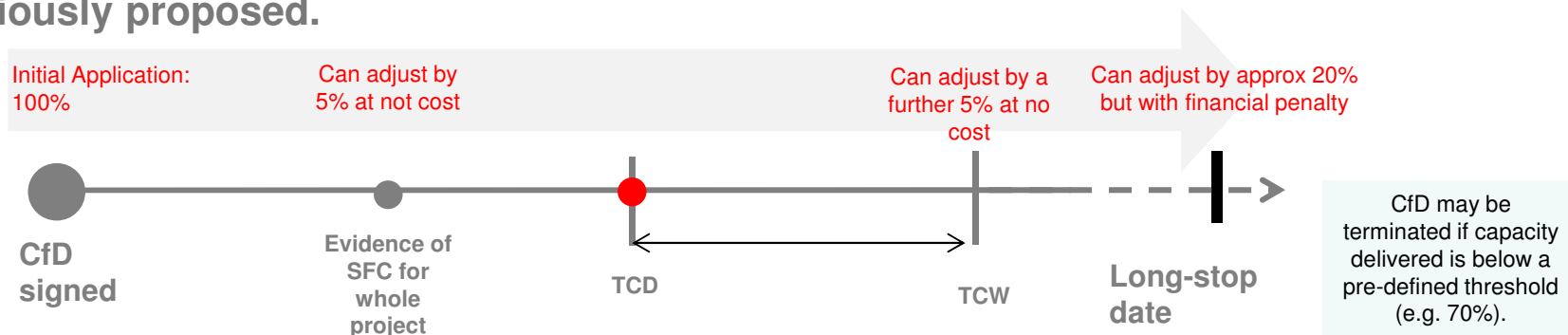


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	Target Commissioning Window	Longstop Date
Advanced Conversion Technology (ACT) (with or without CHP)	1	1
Anaerobic Digestion (with or without CHP)	1	1
Biomass Conversion	1	1
Dedicated Biomass (with or without CHP)	1	1
EfW with CHP	1	1
Geothermal (with or without CHP)	1	1
Hydroelectricity	1	1
Landfill Gas	0.5	0.5
Offshore Wind	1	2
Onshore wind	1	1
Sewage Gas	1	1
Solar PV	0.25	1
Tidal Range	1	2
Tidal Stream	1	2
Wave	1	1

Capacity Amendment: *Offering greater flexibility*

- We now propose a more flexible, staged process where developers can amend the capacity of the CfD at two different points:
 - At the Substantive financial commitment milestone, by a specified percentage (e.g. 5%); and
 - By Longstop Date, by a specified percentage (e.g. a further 5%)
- Delivering less than this adjusted level of capacity by the LSD:
 - Leads to a reduction in the Strike Price linked to the degree of under-delivery reducing the Strike Price by 0.5% for each 1% of unpermitted reduction in capacity;
 - Lead to a right to terminate the CfD only when the unpermitted reduction in capacity is greater than a specified threshold (e.g. failing to deliver 70% of initial project capacity).
- **Terminating at circa 70% significantly reduces developer risk compared to the 95% value previously proposed.**



Significant Financial Commitment: evidencing that the Milestone has been met.

- Developers will be able to evidence by:
 - (i) demonstrating that a minimum % of total project costs have been incurred or irrevocably committed by a given date after CfD award; and/or
 - (ii) provide a combination of construction contracts, fuel contracts, lease agreements, licenses and Board Approvals that would better fit with each technologies development.

	Financial	Construction	Other
Biomass conversion	ONE OF Directors notice to proceed or Signed loan agreement (if Project financed)	PLUS At least one of: Signed EPC contract covering the existing plant's conversion costs; or signed supply agreement for the existing plant conversion; or signed framework agreement for plant conversion and binding purchase order referencing the particular project.	PLUS Feedstock Contract

Allocation and Budget Management



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First-come, First-served

- Applications submitted when developer chooses, and considered in order of receipt.

Unconstrained allocation rounds

- Once the trigger is met in any one delivery year, the allocation approach in all delivery years moves from FCFS to Allocation Rounds

Constrained allocation rounds

- If value of eligible projects applying exceeds budget available, run a rationing process based on Strike Price bid

- Government may choose to define a limited number of minimum or maximum levels of deployment or spend for some technologies, or groups of technologies
- Decisions on whether any maxima or minima will be set have yet to be made, and will be subject to detailed analysis and discussions with industry, prior to an announcement in December.
- Constrained allocation will occur in situations where, for a given round, either the overall budget constraint for a delivery year is reached or one or more maximum constraints are reached.

Phased Projects



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Following feedback from industry we have amended our phasing proposal

- Allowing a single strike price for all phases.
- To qualify offshore wind projects must meet the following conditions:
 - The total capacity of the project must not exceed 1500MW;
 - All phases of the project must be within the same Crown Estate lease area;
 - 35% of the capacity must be constructed in the first phase of the project;
 - The target commissioning date for the first phase must be no later than 31 March 2019;
 - The target commissioning date for the final phase must be the earlier of the two following points:
 - no later than two years after the target commissioning date of the first phase; and
 - no later than 31 March 2021.
- CfD delivery obligations are adjusted to reflect the project's phased delivery:
 - Strike Price for all phases determined by Target Commissioning Date of first phase
 - Termination rights only apply to first phase of a project;
 - Capacity Adjustment applies to whole project, e.g. if project delivers less than 90% of the contracted capacity (by the Longstop Date for that phase) the strike price will be reduced;
 - Target Commissioning Windows and Longstop Dates apply to each phase.



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Next Steps

Way Forward

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Way Forward

Moving towards implementation



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- 21-22 August
 - Workshop: Detailed step through of Contract terms and Allocation process
- 2 September
 - Deadline for submission of completed feedback templates/mark ups

Documents/feedback template:

www.gov.uk/government/publications/electricity-market-reform-contracts-for-difference

Submit responses/enquiries:

Emrcfddesign@decc.gsi.gov.uk



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