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C H A N C E

Briefing note | July 2013

More detail emerges on Electricity Market Reform

Among a raft of announcements concerning energy and other infrastructure investment, the Government has given further details of its Electricity Market Reforms (EMR). Information has been published on draft strike prices and key terms for the new-style "FIT CfD" renewables support contracts, the "Final Investment Decision Enabling" mechanism (preceding the FIT CfD), and details of the "capacity market" mechanism design. This briefing gives an update on these developments.

The Energy Bill, centrepiece of the EMR, is still progressing slowly through the Parliamentary process. In the meantime, work has continued on the detailed policy and technical aspects of EMR. Last week, alongside announcements on shale gas development and major infrastructure investment, the government made a significant package of proposals in the energy field, including on EMR.

FIT CfDs

Draft Strike Prices and Levy Control Framework

DECC continues its drip-feed of detail on the Feed-In Tariff Contract for Difference (FIT CfD) low carbon generation support mechanism [1] . The Department of Energy and Climate Change (DECC) has published [2] a table of annual draft 'strike prices' it plans to use for the Contract for Difference (CfD) for the first five year period beginning in 2014:

- For some technologies, the strike price (in GBP/MWh at 2012 prices) will remain constant for the full period: Biomass Conversion (105), Dedicated Biomass with CHP (120), Energy from Waste with CHP (90), Hydro (95), Landfill Gas (65), Sewage Gas (85), Tidal Stream and Wave (305).
- For other technologies, the strike price reduces over one or more years during the five year period. First year prices: Offshore Wind (155), Onshore Wind (100), Advanced Conversion Technologies (155), Anaerobic Digestion (145), Geothermal (125), Large Solar PV (125).

Key issues

FIT CfDs

- Draft strike prices are published. DECC intends to finalise Strike prices by December 2013
- Position on various CfD contract terms is established. Work continues on the final form of CfD

FID Enabling Programme

- Investment Contracts will be allocated based on evaluation for project deliverability and impact on industry development
- Applications for contracts will be required by 6 September 2013

Capacity Market

- Electricity Demand Response will be eligible to participate subject to a pilot scheme
- Renewables Obligation projects and interconnected capacity will not be eligible
- Pay-as-clear auction method is confirmed for contract allocation

[1] See our briefing: Energy Bill: A milestone but still more work to do – November 2012 for a broad explanation of the FIT CfD

[2] in Appendix A of its document "Electricity Market Reform: Delivering UK investment" - June 2013

The draft strike prices cover only 14 broad technology types, less than the 35 bands of support under the Renewables Obligation. This reflects not only a desire to avoid different prices for the same technology but also the decision not to currently offer strike prices for other technologies due to sustainability concerns. No strike price has yet been set for nuclear, and discussions continue over a strike price for EDF's new Hinkley Point nuclear power station. These prices are subject to change and DECC aims to finalise the prices by December 2013. Further detail will be published in the Government's consultation on a draft EMR Delivery Plan expected shortly.

What Are FIT CfDs?

The new system of FIT CfD payments for generators of low carbon electricity, including nuclear power, is proposed to replace the existing Renewables Obligation.

FIT CfD payments provide a contractual form of guarantee to generators as to their level of revenue – it removes the volatility in power prices. Generators will continue to sell their electricity into the market and then receive variable payments based on estimated market electricity prices (the reference price) to ensure that they obtain the agreed "strike price". As a result, a generator may receive payments to "top-up" its electricity sales to the strike price; on the other hand a generator will be obliged to pay back money where the electricity reference price exceeds the strike price.

Setting the strike price is the critical element for DECC – it needs to be sufficiently high to encourage the development of low carbon energy projects, but not so high that developers are over-incentivised, leading to a 'gold rush'.

The table also confirms the annual levy control framework (LCR) limits as they rise from GBP 3 billion in 2014/15 to GBP 7.6 billion in 2020/2021. The LCR controls expenditure secured through levies placed on energy companies which are then passed onto consumers.

The full set of draft figures, containing more detail on the assumptions for various technologies and the LCR limits, is set out in the Appendix to this briefing.

Policy on CfD terms

DECC continues to work with developers and investors on the form of the CfD. DECC has now published its approach to various contract terms which will be finalised with stakeholders during "the summer" rather than in July 2013 as previously intended[3]. Key new announcements or clarifications are as follows:

- *Contract length* - Confirmation that contracts will generally last 15 years. Approaches will differ for some technologies and larger projects: Biomass contracts will all finish by 2027 and other major projects, including tidal range and large hydro projects, may join nuclear and CCS in having a bespoke contract length.
- *Reference price (measure of electricity market price)* - Baseload technologies will use the season-ahead price moving to a year-ahead price when conditions permit. As expected, intermittent technologies (such as wind and solar) will use the hourly day-ahead price.
- *Refinancing* – Contrary to earlier indications, industry will be pleased to see that DECC will not include a refinancing clause in the *general CfD contract* (which could have seen payments back to consumers where refinancing reduces project costs). However, DECC is undecided on the position for "larger" projects (undefined as yet).
- *Change in law* – DECC has clarified the circumstances in which change in law protection will be provided: in particular, changes in law that limit a generator's ability to deliver output or receive appropriate payment will be included.

[3] See Appendix B of document "Electricity Market Reform: Delivering UK investment" - DECC - June 2013

Compensation will be offered against all operating costs, a specified proportion of capital costs (reducing over time) and lost revenues.

- *Changes in capacity* – There will be limited ability to alter the proposed capacity of a project before or after construction with no impact on strike prices. Other changes would affect the strike price.
- *Force Majeure* – Additional protection will be provided for generators where problems are caused by a network operator.
- *Disputes* – Clarification is given that the government will not be able to impose a settlement where the developer and CfD Counterparty fail to come to agreement.

Final Investment Decision Enabling

The Energy Bill enables the Secretary of State to give effect to early forms of CfDs (referred to as "Investment Contracts") which will be entered into with electricity generators before the implementation of the enduring CfD regime. Investment contracts are intended to help provide certainty for investors and generators to enable them to take important projects forward to "final investment decision" whilst the enduring CfD regime is being finalised. Investment Contracts are to be implemented through the Government's Final Investment Decision (FID) Enabling for Renewables Programme, which has two phases:

- *Phase 1* – applications to participate and the issuing of "status letters" to qualifying applicants (Phase 1 ended on 1 July 2013)[4]; and
- *Phase 2* – applicants who have qualified in Phase 1 may apply for an Investment Contract.

DECC has now published the second update on the FID enabling for renewables programme.[5] The second update gives more detail on Investment Contracts, the evaluation criteria and an indicative timetable for applying for Investment Contracts in Phase 2.

Overview of Investment Contracts

When an applicant enters into an Investment Contract, it will be deemed to have made a one-off choice in respect of the relevant project between an Investment Contract, the Renewables Obligation and a FiT CfD under the enduring CfD regime.

In order for a contract to qualify as an Investment Contract under the Energy Bill, it must:

- Be entered into on or before the earlier of 31 December 2015 and the date on which the definition of "eligible generator" first comes into force under the Energy Bill;
- Contain an obligation for the parties to make payments based on the difference between a strike price and a reference price in relation to electricity generated (i.e. a similar approach to the CfD); and
- Be laid before Parliament with an accompanying statement that the Secretary of State considers that the payments will encourage low carbon electricity generation and that otherwise there is a significant risk that the electricity generation will not occur or will be significantly delayed.

DECC intends that the strike prices for the Investment Contracts will be the final CfD strike prices which are expected to be published in December 2013 (and not the draft prices published in July 2013). However, given that Investment Contracts will be entered into ahead of the enduring CfD regime, their terms will differ from FiT CfDs including as follows:

- The counterparty for Investment Contracts will be the Secretary of State rather than the CfD counterparty (although it is intended that they will be transferred to the CfD counterparty in due course); and

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[4] Status letters will confirm eligibility for participation in the FID Enabling process and will provide information on the emerging position on strike prices, Investment Contract allocation and contract terms.
[5] Final Investment Decision Enabling for Renewables – Update 2: Investment Contract Allocation – DECC – June 2013

- Certain elements of the CfDs may not have been developed by the time Investment Contracts are entered into and, in that event, it may be necessary to include in Investment Contracts a mechanism for the terms to be amended or supplemented accordingly.

Criteria to be used in Investment Contract allocation

The aim of the evaluation process is for DECC to select projects for Investment Contracts which best contribute to policy objectives and which will in aggregate be affordable. In Phase 1, DECC is qualifying projects on the basis of factors including:

- The contribution to the EMR decarbonisation objective;
- The credibility of plans to start generating electricity within the period of the first EMR Delivery Plan; and
- Achievement of the FID programme objective of avoiding an investment hiatus.

In Phase 2, applicants will be scored against evaluation criteria relating to two broad categories:

- *Project deliverability* – to allocate Investment Contracts in a manner that will bring forward investment in, and delivery of, renewable energy; and
- *Impact on industry development* – to allocate Investment Contracts in a manner that will develop a broad, competitive and sustainable supply chain.

Process and indicative timetable for Phase 2

Applicants for Investments Contracts are required to submit certain information demonstrating achievement of the Phase 1 qualification criteria and Phase 2 evaluation criteria, in respect of each project, by midday on 6 September 2013. On receipt of all necessary information, DECC will evaluate whether a project continues to meet the Phase 1 qualification criteria and the Phase 2 evaluation criteria (set out above). Following this exercise, DECC will notify each applicant whether its projects are "qualifying projects" and will request successful applicants to confirm (within 10 working days) their interest in continuing with the process. This is expected to occur in November 2013.

Following publication of the final EMR Delivery Plan in December 2013 and finalisation of the form of CfDs, DECC will send priced Investment Contracts to applicants in respect of qualifying projects, and applicants will be requested to make binding applications for an Investment Contract by a specified deadline. It is expected that binding applications will need to be made by around February/March 2014 and Investment Contracts will be entered into around March 2014.

Capacity Market

Work continues on the detailed design of the capacity market mechanism and DECC has now published further policy and technical details [6] along with a full description of how the mechanism might work in practice [7].

DECC will be testing the design in coming months ahead of a formal consultation on the detailed rules in October 2013. As a result there is still time for change and refinement of the proposals. The effective size of the capacity market will be dictated by the "enduring reliability standard" to be set by the Government, which will determine the desired level of security of supply for the electricity system. This will be set in December 2013 following consultation on the EMR Delivery Plan.

Eligibility

The following capacity types are currently listed as eligible to participate in the capacity market:

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[6] "Electricity Market Reform: Capacity Market – Detailed Design Proposals" - DECC - June 2013

[7] This document is a work-in-progress: Capacity Market Strawman v11 – DECC - June 2013

- New and existing generation capacity including CHP;
- Demand Side Response (including embedded generation) and storage; and
- Permanent "Electricity Demand Response" (which was consulted upon recently) will be included subject to a pilot scheme.

DECC has now decided the following capacity will be ineligible:

- Projects benefitting from Renewables Obligation support (matching DECC's position on FIT CfD generation and small scale Feed-in Tariff generation);
- Interconnected overseas capacity (but DECC will carry out further work on the possibilities for including it in the future); and
- Capacity below 2MW unless aggregated with other capacity.

Capacity Market

A Capacity Market is a mechanism to ensure adequacy of electricity supply at all times. It does this by procuring commitments from generators to be ready to provide generation capacity at times of stress during the committed period, and rewarding them by paying generators for making that capacity available.

Other Details

Those providing capacity into the market will bid for capacity obligations (COs) to provide capacity during times of stress. DECC has confirmed that the auction-design to select successful bidders for COs will be a "pay-as-clear" method. This method works on a "descending clock" basis under which participants state the number of COs they wish to take on at an announced price. The price is reduced until the bids for COs match the available capacity in the auction – this sets the "clearing price" which all bidders then receive. The first capacity auction will run in 2014 for delivery in late 2018 / 2019.

One year contracts will be offered to existing plants. This might be extended to 3 years for those needing major refurbishment, and longer (period to be decided) for new plant.

Other new announcements in the design of the scheme include:

- In the year before the delivery year, capacity providers will be able to trade their COs with other pre-qualified capacity. National Grid (as system operator) will maintain a registry of COs and will need to consent to physical trading.
- National Grid will provide a 4 hour warning of any anticipated stress event.
- In case of an electricity supply "stress event", all capacity providers will be required to provide capacity to the same proportion of their COs, as is necessary to meet demand (so-called "load following").
- Capacity providers will pay a penalty if they do not deliver sufficient energy at the appropriate time based on the value of the "lost load" (representing value to consumers of preventing blackouts). For each provider, this penalty will be limited in a delivery year to a multiple of the expected annual capacity payment multiplied by the MW capacity of COs held.
- Where participants provide more than their allotted capacity they can be paid additional remuneration at the penalty rate in certain circumstances.
- Elexon Limited has been designated as the settlement agent which will arrange payment flows between capacity suppliers and capacity providers. Suppliers will then bear the costs of capacity (and be paid back any relevant penalties) based on their share of peak demand.

Final Comments

Ofgem's recent assessment that the probability of a supply disruption will increase from 1 in 47 years now to 1 in 12 years in 2015/16 (or worse) highlights the urgency of putting the various strands of EMR in place. The Government still believes the Energy Bill will receive Royal Assent by the end of 2013 and proposes to consult on secondary legislation for EMR implementation in October 2013. Whilst timetables have slipped a little on certain areas of EMR, industry will be cheered that the Government appears to be keeping broadly to the deadlines in its November 2012 EMR roadmap, with draft strike prices even being published earlier than expected.

Will the FiT CfD hit the mark with the published strike prices? The Government states that the support is intended to be comparable to that provided under the renewables obligation (RO). Whilst initial reaction to the draft prices appears broadly positive, missing information on CfD contracts and difference in contract lengths still leaves uncertainty over whether the support will match levels available under the RO. The question remains whether these prices will be sufficiently high to provide the confidence to attract the major investment needed to guarantee security of supply in future years.

There is also uncertainty around how useful Investment Contracts will be under the FID enabling process. In particular, Investment Contracts will be conditional on the Government obtaining EU State Aid approval. It is unclear how much comfort these contracts will provide for electricity generators and investors to reach a FID on a project until such approval is obtained.

APPENDIX A: Levy Control Framework and Draft CfD Strike Prices

	Levy Control Framework – Upper Limits on Spend (£m) (2011/12 prices)[8]						
	2014/15	**2015/16**	**2016/17**	**2017/18**	**2018/19**	**2019/20**	**2020/21**
	3,300	4,300	4,900	5,600	6,450	7,000	7,600
Renewable Technology	**Draft Strike prices (£/MWh) (2012 prices)**					**Potential 2020 Deployment Sensitivities (subject to VfM and cost 2014/15 2015/16 2016/17 2017/18 2018/19 reduction) (GW)**[9]	
	2014/15	**2015/16**	**2016/17**	**2017/18**	**2018/19**		
Advanced Conversion Technologies [10] (with or without CHP[11])	155	155	150	140	135	**c. 0.3**	
Anaerobic Digestion (with or without CHP)	145	145	145	140	135	**c. 0.2**	
Biomass Conversion[12]	105	105	105	105	105	**1.2 – 4**	
Dedicated Biomass (with CHP) [13] [14]	120	120	120	120	120	**c. 0.3**	
Energy from Waste (with CHP)[15]	90	90	90	90	90	**c. 0.5**	
Geothermal (with or without CHP)[16]	125	120	120	120	120	**< 0.1**	

8 Control totals for the Levy Control Framework will be set in nominal terms at the relevant Spending Review.

9 Dependent on industry cost reductions over time – figures are not Government forecasts and do not include deployment supported under the small-scale Feed-In Tariff. The upper end of the offshore wind range is reached if costs come down to meet industry aspirations and there is some delay to nuclear and CCS build out.

10 Standard and advanced gasification and pyrolysis, including advanced bioliquids.

11 Combined Heat and Power.

12 Based on biomass contracts ceasing to pay in 2027.

13 The policy of whether and how dedicated biomass will be supported under CfDs will be confirmed within the draft EMR Delivery Plan, published in July 2013.

14 The draft strike price is based on the assumption that Dedicated Biomass CHP generators can apply for the current (1p/kWh) Renewable Heat Incentive (RHI) large biomass tariff. This assumption also applies to other technologies with CHP. Revised RHI tariffs were consulted on in September 2012 and a Government response is pending. DECC may adjust the Dedicated Biomass CHP strike price (and other technologies with CHP) once RHI tariffs have been confirmed.

15 Energy from waste without CHP is not supported under CfDs, which is consistent with the position under the Renewables Obligation.

16 The proposed strike prices for geothermal have been set with the aim of giving equivalent returns from investment as could be accrued under the RO. The Government has commissioned an external report on the potential of geothermal power in the UK – due to conclude in July – and its findings will be incorporated in setting the final strike prices.

Renewable Technology	Draft Strike prices (£/MWh) (2012 prices)					Potential 2020 Deployment Sensitivities (subject to VfM and cost 2014/15 2015/16 2016/17 2017/18 2018/19 reduction) (GW)[17]
	2014/15	2015/16	2016/17	2017/18	2018/19	
Hydro[18]	95	95	95	95	95	**c. 1.7**
Landfill Gas	65	65	65	65	65	**c. 09.**
Offshore Wind	155	155	150	140	135	**8 – 16**
Onshore Wind	100	100	100	95	95	**9 – 12**
Sewage Gas	85	85	85	85	85	**c. 0.2**
Large Solar Photo-Voltaic	125	125	120	115	110	**2.4 – 3.2**
Tidal Stream[19]	305	305	305	305	305	**c. 0.1**
Wave[20]	305	305	305	305	305	

Notes:

- Further detail will be published in July, as part of consultation on the draft EMR Delivery Plan
- Expected deployment under these strike prices is broadly consistent with deployment scenarios presented n the Renewables Roadmap[21] and reflects new cost assumptions and the growth figures announced at Budget 2013. They are subject to change prior to public consultation in July 2013, as part of the draft EMR Delivery Plan.
- There is no published strike price for Tidal Range. Instead, given the lack of cost data available, DECC will consider how best to price CfDs and the appropriate length of contracts for tidal range projects on a case by case basis.
- Please note that there are 14 published strike prices, in contrast to the 35 Renewables Obligation (RO) support bands for renewables. In some cases, we are offering one strike price to cover two or more support bands under the RO, as we are moving away from having more than one support level for a single technology. In addition, we are not offering strike prices for a number of RO technologies at the present time, for example due to sustainability reasons.
- Some technologies are offered the same strike price whether or not they are Combined Heat and Power (CHP) projects, as noted in the table above. CHP projects will also receive support and revenue for the heat element of their generation, therefore overall they will receive greater support than non-CHP generators. This is intended to incentivise CHP generation.

Extracts from Electricity Market Reform: Delivering UK Investment – DECC – June 2013

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[17] Dependent on industry cost reductions over time – figures are not Government forecasts and do not include deployment supported under the small-scale Feed-In Tariff.
[18] For larger hydro projects, DECC will consider how best to price CfDs and the appropriate length of contracts on a case by case basis, similar to the proposed approach for Tidal Range.
[19] The strike prices for Tidal Stream and Wave are intended for the first 30 MW capacity of any project. For higher capacity projects, support for the additional MW will be set at the offshore wind strike price.
[20] As per previous footnote.
[21] https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/80246/11-02-13_UK_Renewable_Energy_Roadmap_Update_FINAL_DRAFT.pdf

Authors

Nigel Howorth
Partner

Nigel is head of the Firm's Environment & Planning Group and specialises in the planning aspects of infrastructure projects and transactions

T: +44 (0)20 7006 4076
E: nigel.howorth @cliffordchance.com

James Shepherd
Associate

James is an associate in the Environment & Planning Group and specialises in energy regulatory matters

T: +44 (0)20 7006 4582
E: james.shepherd @cliffordchance.com

Michael Coxall
Senior Professional Support Lawyer

Michael is a lawyer in the Firm's Environment & Planning Group and specialises in legislative and regulatory changes in planning and public law.

T: +44 (0)20 7006 4315
E: michael.coxall @cliffordchance.com

69697-5-1474