Electricity Market Reform Project
Department of Energy & Climate Change
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Via email: elec.marketreforms@decc.gsi.gov.uk

10 March 2011

Dear Sir,

Consultation on Electricity Market Reform: RICS Submission

RICS – Royal Institution of Chartered Surveyors - is pleased to respond to the Electricity Market Reform consultation.

RICS is the leading organisation of its kind in the world for professionals in property, construction, land and related environmental issues. As an independent and chartered organisation, RICS regulates and maintains the professional standards of over 91,000 qualified members (FRICS, MRICS and AssocRICS) and over 50,000 trainee and student members. It regulates and promotes the work of these property professionals throughout 146 countries and is governed by a Royal Charter approved by Parliament which requires it to act in the public interest.

RICS offer responses to your questions as follows:

Feed-in Tariffs

1 **Do you agree with the Government's assessment of the ability of the current market to support the investment in low-carbon generation needed to meet environmental targets?**

RICS see the EMR as a positive set of proposals that seek to address some of the key energy supply and investment issues that will face the move towards a decarbonised energy sector by 2030 and is therefore welcomed and supported. However, there are a number of key issues in the consultation that are cause for concern that could undermine the ability of the market to support investment in low carbon generation. Our assessment of what these are and how they could be overcome are as follows:

i It should be recognised that the UK operates in a global energy market and needs to maintain its competitiveness through market arrangements that don't encourage the migration of economic activity overseas.

ii There is a lack of a clear direction on 'fuels' for electricity generation, on policy guidance and, the issues of likely future pricing of such fuels.

iii Revenue/return expected from the investment is crucial - i.e. the FIT level, not just cost of capital.

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iv The ability to secure planning permission and associated land consents is of crucial importance in securing investment.

v Concern that assessment of the FIT scenarios and options is being made without knowledge of the detail. 'Governments' are not generally good at setting tariff levels correctly within a competitive market and if the FIT level is wrong, it will not lead to investment. There is concern about the CfD option and fixed FIT because of this – the Premium FIT should avoid this problem to some degree.

RICS is concerned about the impact that proposals for a Carbon Floor Price will have, particularly if introduced too early and at too high a level. This will only exacerbate the construction of new CCGT plants at the expense of renewables, and significantly reduce the ability for coal to progress through to full-scale CCS implementation. RICS propose that there should be a 'gradual introduction into any such arrangements with low levels before 2020. Certainty and clarity for all fuel and generator types is necessary.

2 **Do you agree with the Government's assessment of the future risks to the UK's security of electricity supplies?**

Yes. However, RICS feel that the EMR will fail unless there is a pan-European approach to carbon and energy policy, and that there is a level playing field between the different types of generation. The issues of security are dealt with at a fairly superficial level and do not take account of the short term reduction in the coal power generating sector in the period to 2020, with little realistic likelihood of new CCS plants coming on stream to replace them. This is important in the context of a continuation in the 'dash for gas' and uncertainty over nuclear. The current unrest in Middle East and Africa and its impact on energy commodity prices demonstrate that gas should not be seen as the secure option it is maybe thought to be. Coal is an indigenous reserve that should be safeguarded longer term through ensuring CCS happens, while in the short term allows existing coal plants to operate until the new renewables and low carbon infrastructure comes on stream in sufficient quantity to overcome reliance on imported gas.

The DECC documents fail to adequately address the interaction of different types of generation – to take a simplistic example, what to do when the wind is blowing strongly and there is surplus capacity from wind as well as other clean energy supplies. The obvious answer, storage, is another topic which the EMR fails to address properly, and the suggested options are considered in the absence of any clear initiatives to do anything about it. Whilst gas may not be the most attractive and reliable (at affordable cost) long term option, it is more compatible with renewables to fill short-term supply gaps arising from the intermittent nature of their operation, with lower capital investment and the higher fuel costs mitigated to the extent that they only incurred when the plant is actually needed.

3 **Do you agree with the Government's assessment of the pros and cons of each of the models of feed-in tariff (FIT)?**

The assessment between the FIT models is broadly agreed with, although we are concerned that there is little detail available on the 'numbers and evidence' used to make the assessment between each type of FIT.

RICS agree with the assessments that bring the decision down to one between a CfD FIT and a premium FIT although the decision on which is best is not straightforward. RICS believe there are additional matters which could tip the balance in either direction, and there should be more detail and analysis published before the final decision is made. In any event it will be necessary for government and business to work together

to get the right FIT level to attract new low carbon investment.

In any FIT level, a linkage to fuel prices for low carbon fossil fuel (i.e. CCS) and biomass generation is necessary, the competition for which would be unabated gas-fired plant, because gas-fired generation (plus the carbon price) sets the wholesale electricity price. The FIT must be designed to provide a benefit for coal or gas with CCS and biomass.

4 **Do you agree with the Government's preferred policy of introducing a contract for difference based feed-in tariff (FIT with CfD)?**

Yes. We see the benefits for investors by having a 'guaranteed FIT' and safeguards for government should the market price of power rise above the FIT level, through a CfD FIT. RICS is concerned that there is little available information on the FIT level(s) being proposed, and that if the level is set incorrectly, this will act as a major barrier for new renewable investment. Government is generally not best placed to assess the market level and government and business to work together to get the right FIT level right. On this basis, we believe that a Premium FIT would be the next best solution, as it would form a logical follow on from the RO with its blend of market rate and additional tariff.

In any event, either should ensure linkage to the price of low carbon fossil fuel generation.

5 **What do you see as the advantages and disadvantages of transferring different risks from the generator or the supplier to the Government? In particular, what are the implications of removing the (long-term) electricity price risk from generators under the CfD model?**

The advantages are certainty of price for the investment decision, provided the level and banding is such that it is considered right. However, the downside is that Government must realise that certainty can be all too easily undermined by adhoc reviews, as per the recent FIT announcements. This could seriously dent investment decisions. As a consequence the setting and negotiation of the FIT level needs to be transparent and open to scrutiny, and undertaken with the market. Choosing the CfD option would prevent above market returns being achieved where the price electricity rose above the norm, and therefore be in the public interest long term. How important this point is however, is unknown given the lack of information on FIT rates.

6 **What are the efficient operational decisions that the price signal incentivises? How important are these for the market to function properly? How would they be affected by the proposed policy?**

RICS are unable to comment on this matter.

7 **Do you agree with the Government's assessment of the impact of the different models of FITs on the cost of capital for low-carbon generators?**

Yes. However, RICS urge the government not to see cost of capital as the only factor in the investment decision for low carbon infrastructure. The other key factors are:

i The UK cannot operate in isolation to the European and global markets and the UK needs to maintain its competitiveness through market arrangements to prevent migration of investment overseas.

ii Revenue/return expected from the investment is crucial - i.e. the FIT level

iii Ability to secure planning permission and other land associated consents.

8 **What impact do you think the different models of FITs will have on the availability of finance for low-carbon electricity generation investments from both new investors and the existing investor base?**

This depends on the relationship between the FIT and fossil fuel prices. The difference between low carbon coal or gas generation with CCS and biomass generation on the one hand, which are exposed to fuel prices, and other forms of low carbon generation without such exposure on the other, which are not exposed to fuel prices, must be recognised and taken into account in the FIT. FIT either needs to be set at the level for off shore wind, or be series of clear banding that doesn't discourage any form of low carbon generation.

9 **What impact do you think the different models of FITs will have on different types of generators (e.g. vertically integrated utilities, existing independent gas, wind or biomass generators and new entrant generators)? How would the different models impact on contract negotiations/relationships with electricity suppliers?**

RICS is currently unclear about the impact of nuclear within the EMR and FIT arrangements, and how they will affect the market and would like to see clearer explanation within the white paper.

RICS is unable to comment for utilities and vertically integrated businesses.

In terms of landowners, developers and other smaller enterprises, RICS see that the crucial aspect is the level and banding of the FIT regime, and certainty that comes from government regarding reviews. The lead in times for projects, typically 3-5 years and significant upfront investment, often in excess of £1M per projects before planning permission and consents are granted means that certainty on the FIT and investment regime is absolutely crucial. Sudden changes to a FIT tariff, such as with the recent PV review lead to huge risk.

10 **How important do you think greater liquidity in the wholesale market is to the effective operation of the FIT with CfD model? What reference price or index should be used?**

RICS has no comment on this matter

Should the FIT be paid on availability or output?

Output.

EMISSIONS PERFORMANCE STANDARDS

11 **Do you agree with the Government's assessment of the impact of an emission performance standard on the decarbonisation of the electricity sector and on security of supply risk?**

No. The proposal as it stands merely restates existing government policy in another way and will not incentivise the construction of new fossil fuel plant with CCS; it will disincentivise the construction of new coal-fired plant compared and benefit unabated gas. A single, non fuel-specific EPS will always disadvantage coal-fired generation and, as such, will reduce diversity and hence security of supply as set out above. In essence, the EPS proposals will have the likely effect of speeding up the building of new gas CCGT in the short terms and have a negative impact on the investment in renewables. This will have a significant impact on achieving the 2030 and 2050 decarbonisation targets.

EMR should indicate that the EPS will be lowered at some point such that new gas-fired plant will need to be equipped with CCS, because the EPS as proposed does not include new unabated gas-fired plant and consequently discriminates against new coal-fired plant. In addition to carbon price support, this represents a major incentive to switch from coal to gas-fired plant when considering new investment. As such, it will reduce diversity and hence security of supply. Moreover, whilst it may achieve earlier reductions in carbon emissions, it will result in long-term carbon lock-in because of the large amount of unabated gas plant that it will incentivise and thus make the longer term carbon reduction ambitions to 2030 more difficult to achieve.

To the extent that coal is viewed as anything like "base load" the emissions issue obviously needs to be addressed, in particular by CCS, If coal is also filling gaps in renewable supply, which may not be so practical over short periods, but is certainly over longer periods, the needs for emissions control should perhaps be considered more in the context of overall aggregate emissions from all generation, and that taking account of emissions not only from operation but also construction of new plants perhaps not necessary in the context of a more flexible, imaginative energy policy. The government should also adopt a more positive stance towards CCS with this in mind.

The EMR should have much stronger incentives and proposals relating to CCS and provide a road map for its testing and introduction, including how the proposed EPS relates to the funding rules for CCS demonstrations and exemption from carbon price support for the carbon abated.

12 **Which option do you consider most appropriate for the level of the EPS? What considerations should the Government take into account in designing derogations for projects forming part of the UK or EU demonstration programme?**

Option 1. It may be appropriate to have a slightly higher longer term EPS for CCS demonstration plants to recognise that they are 'first of a kind' and may not apply what eventually is proven to be the most efficient and effective technology.

13 **Do you agree that the EPS should be aimed at new plant, and 'grandfathered' at the point of consent? How should the Government determine the economic life of a power station for the purposes of grandfathering?**

Grandfathering should only apply to old plant not required to be constructed Carbon Capture Ready. All plant, including existing plant and plant now under construction that is, or was, required at the point of consent to be built CCR should have to apply the lower EPS level.

14 **Do you agree that the EPS should be extended to cover existing plant in the event they undergo significant life extensions or upgrades? How could the Government implement such an approach in practice?**

Only after the CCS Review shows that CCS is technically proven and commercially available. In any event, the EPS should apply only to upgrades. It would be wrong to require an existing plant to comply with an EPS in the event that it chooses, for example, to invest in NOX abatement to meet the requirements of the IED and hence extend its life beyond what it would otherwise have been. If there is no such exemption for life extensions in such circumstances, there will probably be no investment to meet the IED requirements and virtually the whole of the existing coal-fired plants would close.

15 **Do you agree with the proposed review of the EPS, incorporated into the progress reports required under the Energy Act 2010?**

Yes, but there should be a much clearer signal that plant will be expected to comply with a tightened EPS by 2025 and then 2030. This should apply not only to new plant but to all plant required to be CCR at the point of consent. Only by applying this requirement can long-term carbon lock-in associated with new unabated gas plants be avoided.

16 **How should biomass be treated for the purposes of meeting the EPS? What additional considerations should the Government take into account?**

Either dedicated biomass generators or co firing biomass in coal-fired power plant represents the main options and same EPS rules should apply from 2025 to both.

RICS see the issue of biomass as having an impact beyond the UK, particularly in relation to food production etc, and would be happy to discuss further with DECC. Government should, however, set up a mechanism to certify biomass sources to ensure that they are genuinely low carbon on the one hand and do not have other implications.

17 **Do you agree the principle of exceptions to the EPS in the event of long-term or short-term energy shortfalls?**

Yes, although this provision should apply only in the short to medium term. In the longer term, beyond 2030, CCS can be expected to be near universal and there should be no ongoing need for such a provision.

OPTIONS FOR MARKET EFFICIENCY AND SECURITY OF SUPPLY

18 **Do you agree with our assessment of the pros and cons of introducing a capacity mechanism?**

RICS see a major disadvantage of the capacity mechanism being the impact on coal burn and the effect on the supply chain that serves the coal power stations. It is the likely that the coal burn will be unpredictable and therefore the generators are likely to be unwilling to place long term orders and buy on spot. This will have an impact for the UK coal mining industry, as coal is not produced in such an on/off way. Coal sites ideally need to produce a regular supply of coal and dispatch on a regular basis. If this were not to be the case, it would have a significant environmental impact, with coal being stored on coal sites rather than at power stations where is best dealt with long term. Reduction in UK mined coal and reliance on imports could hit some 7000 jobs and employment in some of the most deprived parts of the country.

RICS would like to see a minimum guaranteed allocation for all energy types such that there was certainty in the marketplace and impacts on society and employment could be planned for.

It should be recognised that the existing fleet of coal-fired power plant does an excellent job at present of covering for output shortfalls elsewhere. Within the EMR package as a whole, including the impact of carbon price support, care should be taken to ensure that a reasonable amount of such plant continues to have sufficient incentive to invest to meet the requirements of the IED and thus be able to continue to provide this essential role, albeit gradually diminishing, throughout the 2020s when the problems associated with the intermittency and unreliability of wind generation, and the inflexibility of nuclear generation will be increasing.

19 **Do you agree with the Government's preferred policy of introducing a capacity mechanism in addition to the improvements to the current market?**

Yes.

20 **What do you think the impacts of introducing a targeted capacity mechanism will be on prices in the wholesale electricity market?**

Very little.

21 **Do you agree with Government's preference for a the design of a capacity mechanism:**

• A central body holding the responsibility;

Yes

• Volume based, not price based; and

Yes

• A targeted mechanism, rather than market-wide.

Yes. The identified forms of generation, the capacity payments should be market wide.

22 **What do you think the impact of introducing a capacity mechanism would be on incentives to invest in demand-side response, storage, interconnection and energy efficiency? Will the preferred package of options allow these technologies to play more of a role?**

RICS has no comment on this matter

23 **Which of the two models of targeted capacity mechanism would you prefer to see implemented:**

• Last-resort dispatch; or
• Economic dispatch.

RICS has no comment on this matter

24 **Do you think there should be a locational element to capacity pricing?**

RICS has no comment on this matter

ANALYSIS OF PACKAGES

25 **Do you agree with the Government's preferred package of options (carbon price support, feed-in tariff (CfD or premium), emission performance standard, peak capacity tender)? Why?**

No – RICS see no need for carbon price support in addition to FITs. It appears that the FIT may be reduced as the carbon price increases. This would send out negative signals to investors about the long term ability of the FIT regime to support investment post 2020's. The position with nuclear is also unclear. The proposals appear to be basing nuclear support on carbon price support and FIT as a package. RICS is unclear how the nuclear options fit with true renewables and low carbon such as wind.
RICS see the primary driver towards new low carbon investment being the FIT, be that CfD or Premium, and RICS strongly support this element. However, the CPS and EPS are mechanisms that add little to the package, other than hitting fossil fuels, notably coal. RICS feel that the short term security issues until a mature renewables and low carbon generating capacity is in place as the biggest issue, and both EPS and CPS will erode existing generating capacity.

Moreover, carbon price support will incentivise switching from coal to gas with all the security of supply and price risks that will entail. Whilst this may result in earlier carbon reductions, it will lock in carbon emissions in the longer term because of the amount of unabated gas plant that will be constructed as a result. This will make it more difficult to meet longer-term carbon reduction ambitions.

RICS see the EPS as being completely unnecessary as it duplicates other pan-European policy. In its present form, it will only act to accelerate the dash for unabated gas CCGT. The EPS must require new and CCR gas capacity to fit or retrofit CCS, as well as new coal-fired capacity, once CCS has been technically proven and is commercially available.

One further consequence of carbon price support is that it will drive the overall market for coal in the mid 2020s to quite low levels, and in any event uncertain levels. Investment decisions for new surface mines will be difficult to make given the high capital costs in plant and development costs.

26 **What are your views on the alternative package that Government has described?**

The above comments apply.

27 **Will the proposed package of options have wider impacts on the electricity system that have not been identified in this document, for example on electricity networks?**

RICS has no comment on this matter

28 **How do you see the different elements of the preferred package interacting? Are these interactions different for other packages?**

If the Government considers that the reform package has to include the elements set out in preferred option then RICS would comment as follows:-

(i) The CfD FIT level should not be banded, but have one level equating to the level for offshore wind for all major low carbon generating proposals . This would provide a simple straightforward mechanism that is transparent to investors. Reviews should be programmed and not undertaken in an adhoc manner.

(ii) Should the CfD approach not be acceptable then we would suggest that a premium FIT packaged as a continuation to the RO regime is introduced as the options that has proven to work and can provide certainty to the market.

(iii) Carbon floor price should be avoided is possible because it will stimulate a switch from coal to gas that damages diversity and security of supply, risks high and volatile prices, and threatens the survival of the UK's coal mining capacity. However, if it is to be introduced, it needs to have a low commencement price and increase slowly in the period up to 2020 to allow business to adapt and for CCS to be a practical reality.

(iv) A FIT to encourage CCS for both coal and gas, as well as other low carbon generation, with the level determined to cover costs and provide a reasonable return on investment. The FIT may be appropriately lower for CCS demonstration plants subject to separate funding arrangements.

(v) If EPS is to be introduced, than an EPS that applies by 2025 for all new and CCR Coal and Gas Plant once CCS has been technically proven and is commercially available. Without such a reduction, the EPS is flawed.

IMPLEMENTATION ISSUES

29 **What do you think are the main implementation risks for the Government's preferred package? Are these risks different for the other packages being considered?**

The key risks that RICS see are:-

The process could destroy existing generating capacity very effectively, particularly coal without there being any backup plan should the investment in low carbon and nuclear not have the anticipated take up. This is particularly the case up to at least 2020, before CCS is commercially viable.

RICS support the proposals to seek increased investment in renewables/low carbon energy, but see the package of measures as being overly complicated and interdependent on each other. This could lead to uncertainty in the market affecting investment decisions.

The primary driver should be a FIT regime (CfD FIT) that is clear and transparent, with a high degree of certainty over a long term period.

30 **Do you have views on the role that auctions or tenders can play in setting the price for a feed-in tariff, compared to administratively determined support levels?**

Whilst auctioning could have a valuable part to play, we are concerned that auctioning could seriously affect the investment decisions on projects given the lead in time for major projects of c.5 years just to get through planning and permitting, which means that investment decisions need to be taken many years in advance. Tendering could have a serious negative effect on this, consequentially affecting the total investment in lo carbon and renewable generation.

31 **What changes do you think would be necessary to the institutional arrangements in the electricity sector to support these market reforms?**

RICS has no comment on this matter

32 **Do you have view on how market distortion and any other unintended consequences of a FIT or a targeted capacity mechanism can be minimised?**

RICS has no comment on this matter

33 **Do you agree with the Government's assessment of the risks of delays to planned investments while the preferred package is implemented?**

Yes

34 **Do you agree with the principles underpinning the transition of the Renewables Obligation into the new arrangements? Are there other strategies which you think could be used to avoid delays to planned investments?**

Yes. Although RO are going to be grandfathered on projects prior to 2017, there needs to be high degree of certainty that the grandfathering will continue at the level agreed and not be eroded through reviews.

We propose that accreditation under the RO would remain open until 31 March 2017. The Government's ambition to introduce the new feed-in tariff for low carbon in 2013/14 (subject to Parliamentary time). Which of these options do you favour:

• All new renewable electricity capacity accrediting before 1 April 2017 accredits under the RO;

• All new renewable electricity capacity accrediting after the introduction of the low-carbon support mechanism but before 1 April 2017 should have a choice between accrediting under the RO or the new mechanism.

The second option with a choice would seem to offer the most appropriate way forward.

Some technologies are not currently grandfathered under the RO. If the Government chooses not to grandfather some or all of these technologies, should we:

• Carry out scheduled banding reviews (either separately or as part of the tariff setting for the new scheme)? How frequently should these be carried out?

• Carry out an "early review" if evidence is provided of significant change in costs or other criteria as in legislation?

• Should we move them out of the "vintaged" RO and into the new scheme, removing the potential need for scheduled banding reviews under the RO?

If elements are not grandfathered it is unlikely that they would be able to attract external investment. Any form of review process will not help in this respect.

35 **Which option for calculating the Obligation post 2017 do you favour?**

• Continue using both target and headroom
• Use Calculation B (Headroom) only from 2017
• Fix the price of a ROC for existing and new generation

RICS is unable to comment on the exact detail of this proposal, although we are concerned that if there are proposals to move from a market driven approach to a market levy without any form of certainty for the generator, this will affect the viability of the project part way through its operational life.

RICS looks forward to continuing engagement with DECC as it considers the existing regime. Please do not hesitate to contact me for further briefing or detail.

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