WATER UK

Water UK's Response to the DECC 2011 Electricity Market Reform (EMR) Consultation

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- *Do you think there is sufficient competition amongst potential developers /sites to run effective auctions?*
- *Could an auction contribute to preventing the feed-in tariff policy from incentivising an unsustainable level of deployment of any one particular technology? Are there other ways to mitigate against this risk?*

Question 33 - *Do you have view on how market distortion and any other unintended consequences of a FIT or a targeted capacity mechanism can be minimised?* 19

Question 36 - *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:* 19

- *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.

Question 37 - *Some technologies are not currently grandfathered under the RO. If the Government chooses not to grandfather some or all of these technologies, should we:* 19

- *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?*

Question 38 - *Which option for calculating the Obligation post 2017 do you favour?* 20

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

1. Introduction

Water UK represents all UK water and wastewater service suppliers at national and European level. We provide a positive framework for the water industry to engage with government, regulators, stakeholder organisations and the public.

We are pleased to have the opportunity to respond to this consultation.

- The water industry acknowledges and supports the need for the UK economy to decarbonise and that change is needed to deliver the required investment to provide this along with security of supply.

- The water industry is a major consumer of electricity as well as providing significant renewable generation capacity much of which would not have been developed without the support of earlier initiatives to support renewable generation e.g. the renewable obligation.

- While welcoming proposals for reform of the electricity market and any changes that help establish a clearer and more stable pathway for investment in lower carbon generation, the cost of reforms and their impact on electricity prices are of concern. Of critical importance is the affordability to customers of any mechanisms to encourage new investment.

- Support for low carbon based generation is welcomed by the industry and is expected to help provide favourable market conditions for new nuclear capacity and for trials of new coal plant fitted with carbon capture and storage technology. However we would urge the government to ensure that any reforms provide and maintain strong signals for continued investment in renewable generation, and furthermore to ensure that future renewable generation projects are not compromised by the over-rewarding of large infrastructure nuclear and CCS projects.

- However more clarity is needed with regard to the details and practicalities of implementing the proposals, particularly concerning the FIT with Contract for Difference (CfD) and a proposed central agency. Effective design, implementation and

operation of this proposal is necessary to avoid unwanted consequences that could adversely affect marginal projects that may be set to go ahead under current market arrangements. To explore such possible impacts and aid participant understanding DECC are encouraged to take this opportunity to demonstrate to stakeholders how Contracts for Difference are designed to work and their expected market impacts.

- Furthermore industry members are concerned that there is already a multitude of instruments designed to incentivise and stimulate investment in low/zero carbon technology in support of both generation and demand-side measures i.e. Renewable Obligation, FIT, CCA, EUETS, Climate Change Levy and the CRCEES Scheme.

- This plethora of initiatives designed to promote reduced carbon emissions already creates a degree of confusion potentially leading to uncertainty and so lower levels of investment. The addition of carbon support pricing, further changes in FiTs and the EPS may add to this uncertainty and to a perception of increased regulatory risk.

- Currently these measures add considerable cost to the electricity supply chain and so to customers' bills and we are concerned that these further proposals will serve to add complexity, risk and cost.

- However these reforms also present an opportunity to simplify some measures in this diverse mix of initiatives. One such simplification of the CRCEES would be to treat renewably generated electricity (i.e. with REGO status) as zero carbon regardless of any other subsidies as this would send a stronger signal to renewable electricity developers and would help the water industry bring forward marginal projects that might not otherwise be constructed.

- Nevertheless, the water industry welcomes changes that help provide:
  i) a fair reward for investment in renewable generation
  ii) predictability that adequately rewards renewable energy generators while keeping the price of electricity that is vital to our industry at affordable levels

iii) a stable and liquid power market with extended price visibility

- Also, while acknowledging that investment is needed across the entire energy system including low-carbon generation technologies, investment is also needed in energy infrastructure as well as training and development of the personnel required to achieve Government targets.

- Finally the industry would like to see revenues raised from these mechanisms both put back into UK renewable generation and used to protect vulnerable customers. Furthermore the industry believes that transparency around where this revenue is being invested should be mandated.

- Overall, based on an initial review of the proposal and subject to the detail of the proposed mechanisms and their implementation, the industry can see the potential long term benefits of these proposals, but remains concerned about the short term impacts.

Electricity Market Reform – Summary of Consultation Responses

Q1 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?

A1 Yes. Investment in generation is required and the move from primarily fossil fuelled generation to a greater share of renewable and low carbon sources is essential. The mix of carbon price support with incentives for renewable generation sends the right messages. Also as the UK is competing for global capital and resources in the area of power generation it is important that the UK is attractive to investment from global capital markets. However there is a minority view that as decarbonisation of generation is the professed aim, the application of a correctly set carbon tax would alone would send a clearer message to the market and allow it to respond with optimal solutions for decarbonisation. This would simplify implementation and limit or indeed reduce both existing and proposed mechanisms in a market already faced with myriad different schemes, all intended to promote decarbonisation. However, relying on a single mechanism to bring forward new investment in generation on the scale required could itself be rather risky.

Q2 Do you agree with the Government's assessment of the future risks to the UK's security of electricity supplies?

A2 Yes. Retirement of ageing plant combined with the UK's environmental commitments make it vital to stimulate timely investment. However demand growth may be overstated and depends on the degree to which renewable electricity is used to support wider decarbonisation. There is an argument that such a "predict and provide" policy is not optimal for the electricity market. Arguably optimum solutions should arise from operation of the market itself via the operation of market forces rather than from government. Never the less, security of electricity supply is paramount to the water industry whose reliable function is essential to ensure continuing supplies of potable water and removal of waste in the interests of its customers and general public health. Therefore the industry welcomes the importance placed on security of supply by the government.

Q3 Do you agree with the Government's assessment of the pros and cons of each of the models of feed-in tariff (FIT)?

A3 Yes. In particular CfD FiTs appear to provide a high level of price certainty while still requiring skilful market trading to ensure the revenue stream expected. This helps minimise cost to the consumer while contributing to market liquidity. However there are slight concerns that if not well thought out, these changes could adversely affect marginal projects that may be set to go ahead under current market arrangements.

Q4 Do you agree with the Government's preferred policy of introducing a contract for difference based feed-in tariff (FIT with CfD)?

A4 Yes. However we have some concerns regarding how the CfD reference price(s) will be set. Set too low and the level of investment required will not be forthcoming while set too high risks driving up electricity prices once renewable generation becomes more established in the UK's generation mix.

Q5 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.

A5 A key advantage is much greater price certainty, hence new developments should be cheaper and easier to finance. However the price setting mechanism is extremely important as it will set longer term market expectations which could on the one hand be insufficient to stimulate the desired investment while on the other hand could potentially result in over rewarding low carbon generators to the detriment of customers. However the perception of regulatory risk is very important in this situation as fears of political interference resulting in unexpected changes of policy and regulation could result in sub-optimal outcomes.

Q6 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?

A6 Efficient operation, despatch and utilisation contribute to and are incentivised by a liquid and so competitive market. The proposed policy should therefore incentivise investment in low carbon generation while ensuring efficient market participation.

Q7 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?

A7 Yes –subject to modelling reliability and assumptions

Q8 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 existing the investor base?

A8 Fixed and CfD FiTs seem both likely to increase investment significantly more than premium FiTs. However CfD FiTs also incentivise competitive market participation.

Q9 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?

A9 VIUs would be expected to invest and source more electricity from low carbon generation. Existing gas generation would still have a key role due to its flexibility and also its lower emissions (compared to coal) and so impacted by a lower carbon price support burden. Renewable generation should increase due to improved price certainty and returns stimulating greater levels of investment. New entrants should also be attracted by these improved returns and easier availability of finance. New investment from continental Europe may become available as the FiTs mechanism is commonly used and well understood in Europe.

Q10 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?

A10 Improved liquidity is essential otherwise investment signals may not favour low carbon investment. It is also important to enable generators to trade effectively and so ensure they get their expected commercial returns on output. It also promotes more price certainty. Clearly the reference price is very important and so setting it using commercial mechanisms has its attractions but depending on how this was implemented it could prove a barrier to the development of smaller scale renewable generation and newly emerging renewable businesses.

Q11 Should the FIT be paid on availability or output?

A11 Output, as it is easier to demonstrate and as the key characteristic of renewable generation is its zero/low carbon emissions rather than its ability to be available for rapid despatch. Availability is a more appropriate way of rewarding plant capable of despatch but that may not be called to run, or to run to the extent anticipated, due to the difficulty in accurately predicting level of demand shortfalls which in real time can be driven by external factors such as weather.

Q12 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?

A12 Yes but there is a view that this impact could be better achieved by setting carbon price support at a level that drives operators to reduce carbon emissions while doing so via their commercial decisions rather than carbon emission limits set by statute or other government regulation.

Q13 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?

A13 A strong EPS signal by setting the level at 450 would help demonstrate the Govt's commitment to its stated aims. In view of the use of the lower limit recommended and due to the first time nature of full scale implementation of e.g. CCS plant, derogations for demonstration projects should be allowed.

Q14 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?

A14 Yes. There is a serious danger that retrospective application might hasten or precipitate the closure of older coal plant risking security of supply.

Q15 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?

A15 Yes

Q16 Do you agree with the proposed review of the EPS, incorporated into the progress reports required under the Energy Act 2010?

A16 Yes

Q17 How should biomass be treated for the purposes of meeting the EPS? What additional considerations should the Government take into account?

A17 The sustainability and source of biomass feed should be taken into account. It should not encourage import of large volumes of biomass from countries and environments that cannot renew and sustain it e.g. palm oil from plantations resulting from virgin forest clearance.

Q18 Do you agree the principle of exceptions to the EPS in the event of long-term or short-term energy shortfalls?

A18 Yes. In order to ensure security of supply such mechanisms may occasionally need to be used, particularly as the UK is moving toward a market containing more inflexible and intermittent generation.

Q19 Do you agree with our assessment of the pros and cons of introducing a capacity mechanism?

A19 Broadly yes subject to some concerns about the detail of the various proposals and their interaction with each other.

Q20 Do you agree with the Government's preferred policy of introducing a capacity mechanism in addition to the improvements to the current market?

A20 Yes. The industry welcomes focus on security of supply and with the UK's ageing generation fleet this is becoming a matter of increasing concern. The industry therefore welcomes the proposal for capacity payments and incentives for demand side response. Capacity mechanisms are appropriate for generation plant making available capacity to meet potential shortfalls. However it is not thought to be appropriate or necessary for all market participants and so the targeted resource option is preferred.

Q21 What do you think the impacts of introducing a targeted capacity mechanism will be on prices in the wholesale electricity market?

A21 It will increase price as greater levels of backup availability will be required as more intermittent renewable sources are added to the UK's generation mix. However the impact on prices is thought likely to be relatively small – at least in the earlier years.

Q22 Do you agree with Government's preference for a the design of a capacity mechanism:

- a central body holding the responsibility;
- volume based, not price based; and
- a targeted mechanism, rather than market-wide.

A22 Yes – NGT is an obvious choice as it already acts as the UK's system operator and has a lot of experience in operating competitive tenders for STOR and similar services that help ensure a secure, stable and efficient market. Furthermore such mechanism should be volume rather than price based and should be targeted rather than market wide.

Q23 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?

A23 If properly designed this is likely to improve/stimulate investment in demand response plant and innovative load shedding strategies. It is to be hoped that the price signals will also stimulate improvement in network connections and the efficiency of network operation.

Q24 Which of the two models of targeted capacity mechanism would you prefer to see implemented:

- Last-resort dispatch; or
- Economic dispatch.

A24 Economic despatch

Q25 Do you think there should be a locational element to capacity pricing?

A25 Yes as the construction of new generation should be incentivised to be closer to demand thus reducing losses and the impact of network constraints.

Q26 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?

A26 Yes, as this package appears to result in better outcomes than the alternatives. However there is considerable concern that the volume of initiatives could of itself create confusion and uncertainty and so not achieve the desired outcomes.

Q27 What are your views on the alternative package that Government has described?

A27 Thought unlikely to stimulate as much new generation and unlikely to attract as much investment as the preferred option.

Q28 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?

A28 Almost certainly yes. The enabling legislation will need careful consideration and drafting so that unexpected outcomes can be properly managed or accommodated

Q29 How do you see the different elements of the preferred package interacting? Are these interactions different for other packages?

A29 There is a veritable raft of initiatives being rapidly deployed by the government and there is a real concern that this could lead to confusion and uncertainty, neither of which are good for investment. It could also result in scope for gaming and there is a strong danger that this will high levels of bureaucracy. All of the above could significantly reduce the desired effect and lead to sub-optimal outcomes.

Q31 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?

- Can auctions or tenders deliver competitive market prices that appropriately reflect the risks and uncertainties of new or emerging technologies?
- Should auctions, tenders or the administrative approach to setting levels be technology neutral or technology specific?
- How should the different costs of each technology be reflected? Should there be a single contract for difference on the electricity price for all low-carbon and a series of technology different premiums on top?
- Are there other models government should consider?
- Should prices be set for individual projects or for technologies
- Do you think there is sufficient competition amongst potential developers /sites to run effective auctions?
- Could an auction contribute to preventing the feed-in tariff policy from incentivising an unsustainable level of deployment of any one particular technology? Are there other ways to mitigate against this risk?

A31. Some concerns have been expressed regarding the use of auctions or tendering as a means of establishing support levels as this could expose small scale generators and emerging industries to an unnecessary level of risk. Such concerns suggest that administratively determined support levels may be preferable.

Q33 Do you have view on how market distortion and any other unintended consequences of a FIT or a targeted capacity mechanism can be minimised?

A33 By careful consideration and drafting of the enabling legislation

Q36 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;
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A36 There is support for the retention of the RO until 2017 after which grandfathering of schemes should continue until the planned end of the RO in 2037. Removal of the RO could lead to less certainty of future income streams so financing becomes both more risky and costly. More details of the proposed plans to "vintage" RO and for the grandfathering proposals are needed to enable the provision of a more considered response. Certainly the choice of the FiTs or RO mechanism should be retained until at least 2017.

Q37

- 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?

A37 Scheduled banding reviews are preferred option of some respondents

Q38 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

A38 The view has been expressed that fixing the price of a ROC would simplify the operation of the RO mechanism and provide improved certainty of return. However it is not clear to what extent this view is commonly held across the industry.