



***Response to DECC Electricity Market Reform  
Consultation Paper***

**on behalf of**

**AES Ballylumford Ltd and AES Kilroot Power Ltd**

**10 March 2011**

*Submitted by*



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## Introduction

AES Ballylumford Limited and AES Kilroot Power Ltd ("AES") welcome the opportunity to respond to the Department of Energy & Climate Change ("DECC") Electricity Market Reform Consultation Document ("the Consultation Document").

AES is the largest independent electricity generator in Ireland owning both the Ballylumford (1,213 MW sent out) and Kilroot (618 MW sent out) Power Stations in Northern Ireland.

AES is a participant in the Single Electricity Market (SEM) which is the all-island electricity market for Northern Ireland and the Republic of Ireland. The SEM is a centrally dispatched gross mandatory pool and participation in the pool is mandatory for generators (greater or equal than 10MW) and suppliers. A market power mitigation strategy was developed as part of the implementation of the SEM and a key feature of this is that generators are required to bid their power into the pool at short run marginal cost (the incremental cost which a generator incurs to generate an incremental unit of power). Generation Licence conditions and a Bidding Code of Practice set out the basis on which generators are expected to bid in the SEM and a Market Monitoring Unit monitors compliance against these.

## Summary

AES is extremely concerned that the Government has published the Consultation Document without full consultation with the Northern Ireland Executive, without considering the implications for the SEM and without undertaking an impact assessment for Northern Ireland.

The SEM is a unique market in that it operates across two separate legal jurisdictions with generators in Northern Ireland and the Republic of Ireland directly competing with each other. The implications of the Government's proposals must therefore be separately assessed.

As set out in the Consultation Document the proposals could:

- disproportionately increase electricity costs for consumers in Northern Ireland;
- reduce the profitability and sustainability of generators in Northern Ireland;
- introduce security of supply risks for Northern Ireland; and
- hinder or negatively impact the Northern Ireland Executive's ability to meet its higher renewables targets.

AES believes that the existing Climate Change Levy (CCL) (for coal and gas) and fuel duty (for HFO and distillate) exemptions must be retained for fossil fuels used to generate electricity in Northern Ireland because of its geographic separation and the unique circumstances of



Republic of Ireland counterparts thereby weakening their competitive position in the market and ultimately their profitability and sustainability. It is also likely to skew investment in new plant towards the Republic of Ireland and will increase electricity prices for the whole of Ireland when a Northern Ireland plant is the price setting plant in the SEM.

AES's detailed response to the Carbon Price Floor Consultation is appended to this document.

## **CONSULTATION QUESTIONS**

### **Current Market Arrangements**

#### **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?**

AES accepts that without reform the current market arrangements will be inadequate to deliver the significant investment in low-carbon generation needed to meet the UK's carbon reduction targets. AES is however concerned that all of the Government's analysis on the current market arrangements focus solely on the GB electricity market arrangements and that the separate market arrangements (SEM) which apply to Northern Ireland have been ignored. AES is also extremely concerned that no separate impact assessment was carried out for NI.

It should be noted that the Northern Ireland Executive has set itself an aggressive renewables target of 40% of electricity consumption from renewable sources by 2020. Currently around 10% of electricity consumption is from renewable sources and therefore significant investment in renewable generation is required over the rest of this decade. It is therefore vital that any reform does not indirectly jeopardise Northern Ireland's ability to meet its challenging renewables target.

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

In the Consultation Document the Government outlines that it expects security of supply risks to increase under current market arrangements due to an increase in the Expected Energy Unserved and insufficient investment in new flexible plant or other flexible capacity such as interconnection, demand side response and storage. AES agrees with this analysis however AES wishes to point out that security of supply risks are even greater in NI.

In NI 18% (510 MW) of fully dispatchable plant (including the Moyle interconnector) is scheduled to close by 2015 as a result of the Large Combustion Plant Directive. A further 17% (476 MW) is then scheduled to close as a result of the Industrial Emissions Directive. Unlike GB there is no new capacity either in construction or development to replace this. With no nuclear energy, no indigenous fossil fuel and no gas storage NI is also significantly exposed to volatile global fuel prices.

In conjunction with the Republic of Ireland The NI Executive has set itself an ambitious

primarily delivered through on-shore wind. Currently around 10% of electricity consumption is from renewable sources.

The closure of plant as a result of the Large Combustion Plant Directive and the Industrial Emissions Directive combined with such high levels of intermittent generation have significant security of supply implications for NI. NI will therefore need significant new flexible capacity to ensure continued security of supply.

The Transmission System Operators in NI (SONI) and ROI (Eirgrid) recently published a joint Generation Capacity Statement for 2011 – 2020. This highlighted a deficit of capacity in NI in 2016 – 2018 under certain scenarios. There are therefore very real security of supply concerns for NI which have the potential to be exacerbated by the Government's EMR proposals, particularly the introduction of a carbon price floor.

## **Options for Decarbonisation**

### ***Feed-in Tariffs***

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

Energy policy in NI has been devolved to the Northern Ireland Executive and investment in renewable generation has been incentivised through the Northern Ireland Renewables Obligation.

In general terms AES agrees with the Government's assessment of the pros and cons of each of the models of FIT however with regard to the cost and success in meeting the Northern Ireland Executive's renewable targets specific modeling would be required to be carried out on the impact of the various models in Northern Ireland. It is worth noting that in the Northern Ireland Executive's recently published Strategic Energy Framework it indicates that the introduction of a FIT would have cost implications for electricity customers in NI.

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

AES will be unable to comment on the Government's preferred policy of introducing a FIT with CfD until the options are modeled specifically for NI. The primary difficulty for a FIT with CfD is determining the correct pricing mechanism. It is worth noting however that in the NI context the price of any FIT with CfD would have to be linked to the System Marginal Price in the SEM.

#### **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?**



customers. The primary disadvantage is that it transfers risk to customers and could increase long term electricity costs if the contract prices are set too high.

Removing the long-term electricity price risk from generators under the CfD model is likely to gradually erode competitiveness and liquidity as the proportion of electricity generated under contract increases in line with decarbonisation of the sector. Ultimately the point will be reached where the majority of electricity is generated under long-term contract and therefore it is uncertain whether a properly functioning wholesale market could be maintained.

**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?**

Reliable and predictable price signals enable a generator to plan investment and outages and hedge risks efficiently. This should in turn enable the market to operate efficiently by ensuring that there is sufficient capacity to meet demand and by minimising costs for customers.

**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?**

AES is not a renewable generator and is therefore not best placed to comment on this.

**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 existing the investor base?**

AES is not a renewable generator and is therefore not best placed to comment on this.

**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?**

AES is not a renewable generator and is therefore not best placed to comment on this. It is however likely that the FIT will have to be adapted to ensure that it is attractive to all of the desired technologies and it will also be important to ensure that it is not prohibitively complex and difficult to predict, particularly for smaller investors.

**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?**

Liquidity will be extremely important in order to determine the reference price for CfDs since there is no pool price against which to reference. In Northern Ireland the reference price should be the SEM System Marginal Price.

## **11. Should the FIT be paid on availability or output?**

As the objective of introducing a FIT is to increase revenue certainty for investors a FIT paid on availability will be required. If the FIT is paid on output there is an increasing risk of renewable curtailment as the proportion of renewable generation connected to the grid increases.

### ***Emissions Performance Standards***

## **12. 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?**

The Government's assessment of the impact of an EPS has been based on the GB electricity market. The Government therefore needs to carry out a specific impact assessment for Northern Ireland taking into account its renewables targets, market structure and security of supply risks as outlined in the answer to question 2 in order to determine whether an EPS is appropriate.

It is also unclear whether the introduction of an EPS would be in direct contravention of Article 9 of the IED which appears to forbid the inclusion of an emission limit value for direct emissions of greenhouse gas in the permit issued to installations included in the scope of the Emissions Trading Directive.

## **13. 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?**

In the context of Northern Ireland, neither option would seem appropriate. The options are both based on two assumptions. Firstly that CCS technology will be technically and commercially viable and secondly that suitable physical storage geotechnical structures exist close enough to the generating facility. It is unclear whether Northern Ireland and its surrounding coastal areas contain any geotechnical structures (for example depleted oil and gas fields) suitable and economically feasible for CO<sub>2</sub> storage. In addition if an EPS was introduced in Northern Ireland this would increase the generation costs for Northern Ireland generators relative to their Republic of Ireland counterparts thereby weakening their competitive position in the market and ultimately their profitability and sustainability. It is also likely to skew investment in new plant towards the Republic of Ireland and will increase electricity prices for the whole of Ireland when a Northern Ireland plant is the price setting plant in the SEM.

AES does not believe that an EPS should be introduced prior to demonstration of the technical and commercial viability of CCS.



**14. 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?**

AES agrees that in the event that an EPS is introduced, that it should be exclusively applicable to new coal fired plant and that consents should be grandfathered at the point of consent for a period not less than the economic life of the plant. The economic life of the plant should be determined by the technology type and the period over which the investor can earn a reasonable rate of return on the investment made.

**15. 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?**

AES notes and agrees with the qualification in the Consultation Document that the EPS should not apply to plant which installs Selective Catalytic Reduction in order to comply with the new IED emissions standards, or plant that reduces its carbon emissions by retrofitting CCS to a proportion of its capacity.

AES does not agree that the EPS should be extended to cover existing plant which undergoes significant life extension or upgrade unless the life extension period is equivalent to that of a new build. With reference to the response to question 12 above and the need for an impact assessment for Northern Ireland, AES holds the view that the EPS should only apply to new plants as proposed by the Government. Current EU Directives and legislation set out the requirements and the introduction of additional requirements will create further uncertainty to investment decisions which are already burdened with regulatory and market risk.

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

The Energy Act 2010 does not apply to Northern Ireland.

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

AES believes that biomass should be exempt from any EPS and reliance made on requirements under the IED for 'Best Available Techniques' to be adopted in any new build plant.

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

AES does not believe that an EPS should be introduced prior to demonstration of the technical and commercial viability of CCS and that at that stage an impact assessment should be carried out prior to the introduction of an EPS. This would eliminate the requirement to consider exemptions to the EPS at this stage.

AES agrees that security of supply is a fundamental requirement in any electricity market and that the market should be structured to highlight clear investment signals to maintain adequate plant margins over the short and long term periods. If exemptions to the EPS were to be granted the justification and criteria for doing so should be clear and transparent. Any exemption should also be grandfathered for the economic life of the plant.

**Options for Market Efficiency and Security of Supply**

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

As AES operates in the SEM it would not be subject to a GB capacity mechanism and therefore offers no comment in this area. It is however worth noting that the capacity payment mechanism has operated very successfully in the SEM although it operates in conjunction with a Bidding Code of Practice.

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

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

As AES operates in the SEM it would not be subject to a GB capacity mechanism and therefore offers no comment in this area.

**22. Do you agree with Government's preference for 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.

As AES operates in the SEM it would not be subject to a GB capacity mechanism and therefore offers no comment in this area.

**23. 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?**



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

- **Last-resort dispatch; or**
- **Economic dispatch.**

As AES operates in the SEM it would not be subject to a GB capacity mechanism and therefore offers no comment in this area.

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

As AES operates in the SEM it would not be subject to a GB capacity mechanism and therefore offers no comment in this area.

#### **Analysis of Packages**

**26. 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?**

AES does not agree with the Government's preferred package of options because of the unique circumstances of the SEM and because the impact of the package on Northern Ireland has not been specifically assessed in the Government's Impact Assessment.

AES believes that the existing CCL and fuel duty exemptions must be retained for fossil fuels used to generate electricity in Northern Ireland because of its geographic separation and the unique circumstances of the SEM.

The SEM is a unique market in that it operates across two separate legal jurisdictions with generators in Northern Ireland and the Republic of Ireland directly competing with each other. The introduction of the proposed CCL and fuel duty on fossil fuels would increase the generation costs for Northern Ireland generators relative to their Republic of Ireland counterparts thereby weakening their competitive position in the market and ultimately their profitability and sustainability. It is also likely to skew investment in new plant towards the Republic of Ireland.

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

AES is unable to provide a view on the alternative package the Government has described because the impact of the package on Northern Ireland has not been specifically assessed in the Government's Impact Assessment.

**28. 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?**

AES will only be able to provide a view on whether the proposed package of options has any wider implications on the electricity system once the Government has published a specific impact assessment for Northern Ireland.

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

As noted in the answers to questions 13 and 26 any package which introduces an EPS and removes the CCL and fuel duty exemptions for fossil fuels used to generate electricity will increase the generation costs for Northern Ireland generators relative to their Republic of Ireland counterparts thereby weakening their competitive position in the SEM and ultimately their profitability and sustainability. They are also likely to skew investment in new plant towards the Republic of Ireland.

As noted in the answer to question 3 the introduction of a FIT with CfD may not be the most suitable mechanism to meet the Northern Ireland Executives's renewable targets. It is not possible to comment on the various models since the Government did not carry out an assessment of the impact of the proposals on Northern Ireland.

### **Implementation Issues**

**30. 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?**

One of the main implementation risks for the Government is that it has not carried out an impact assessment for Northern Ireland and that the proposals could therefore:

- disproportionately increase electricity costs for consumers in Northern Ireland;
- reduce the profitability and sustainability of generators in Northern Ireland;
- introduce security of supply risks for Northern Ireland; and
- hinder or negatively impact the Northern Ireland Executive's ability to meet its higher renewables targets.

There is also a risk that the packages will conflict with or undermine EU legislation and policy.

Many of the implementation issues will not become apparent until the detailed proposals are published.



**31. 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?

AES does not believe that auctions will provide sufficient certainty for investors in order to secure the level of new investment required. There is also no certainty that the winners will actually build new plant.

AES believes that different levels of support should be established for different technologies in a similar way to the renewable obligation.

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

AES believes that a credible counter-party will need to be established if the Government intends to progress with a FIT backed CfD.

**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?**

AES considers that market distortion and other unintended consequences of a FIT or targeted capacity mechanism can be minimised by consulting widely on the detail behind the proposals as this is likely to highlight many of the issues.

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

AES agrees with the Government's assessment of the risks of delays to planned investments while the preferred package is implemented. It is therefore important that the Government is open and transparent with regards to its proposals and that it engages fully with the industry.

**35. 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?**

AES agrees that the objectives of the transition must be to protect existing RO investments, prevent a delay in investment and encourage further renewables deployment.

**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:**

- 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.

AES believes that investors should be given a choice as to accreditation under the RO or the new mechanism.

**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:**

- 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?

AES supports the use of grandfathering and the certainty that this gives investors. If some technologies are not grandfathered the Government should identify which mechanism will provide the greatest certainty to the relevant technology.

**38. 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

AES considers that the relevant option will need to be considered separately by the Northern Ireland Executive in the context of Northern Ireland.





***Response to HM Treasury/HM Revenue & Customs  
Consultation Paper***

**on behalf of**

**AES Ballylumford Ltd and AES Kilroot Power Ltd**

**11 February 2011**

*Submitted by*



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## Introduction

AES Ballylumford Limited and AES Kilroot Power Ltd ("AES") welcome the opportunity to respond to the HM Treasury/HM Revenue & Customs consultation 'Carbon Price Floor: Support and Certainty for Low-Carbon Investment'.

AES is the largest independent electricity generator in Ireland owning both the Ballylumford (1,213 MW sent out) and Kilroot (618 MW sent out) Power Stations in Northern Ireland.

AES is a participant in the Single Electricity Market (SEM) which is the all-island electricity market for Northern Ireland and the Republic of Ireland. The SEM is a centrally dispatched gross mandatory pool and participation in the pool is mandatory for generators (greater or equal than 10MW) and suppliers. A market power mitigation strategy was developed as part of the implementation of the SEM and a key feature of this is that generators are required to bid their power into the pool at short run marginal cost (the incremental cost which a generator incurs to generate an incremental unit of power). Generation Licence conditions and a Bidding Code of Practice set out the basis on which generators are expected to bid in the SEM and a Market Monitoring Unit monitors compliance against these.

## Summary

AES believes that the existing Climate Change Levy (CCL) (for coal and gas) and fuel duty (for HFO and distillate) exemptions must be retained for fossil fuels used to generate electricity in Northern Ireland because of its geographic separation and the unique circumstances of the SEM.

The SEM is a unique market in that it operates across two separate legal jurisdictions with generators in Northern Ireland and the Republic of Ireland directly competing with each other. The introduction of the proposed CCL and fuel duty on fossil fuels would increase the generation costs for Northern Ireland generators relative to their Republic of Ireland counterparts (assuming that the CCL and fuel duty can be included in generator bids) thereby weakening their competitive position in the market and ultimately their profitability and sustainability. It is also likely to skew investment in new plant towards the Republic of Ireland and will increase electricity prices for the whole of Ireland when a Northern Ireland plant is the price setting plant in the SEM.

There is also a serious risk that the Regulatory Authorities in Northern Ireland and the Republic of Ireland (the Northern Ireland Authority for Utility Regulation and the Commission for Energy Regulation), who manage the SEM through the SEM Committee, will not permit the inclusion of the proposed CCL and fuel duty in generator bids and therefore the pass-through to electricity customers. While this would clearly conflict with the



back the value of free EUAs granted) in their bids into the market. Given this precedent, there is a risk the SEM Committee would similarly not permit the inclusion of the proposed CCL and fuel duty in generator bids. Failure to do so would result in Northern Ireland generators operating at a loss when either they are the price setting plant in the SEM or when they are constrained on, and at lower margins when they are not the price setting plant. This would be both anti-competitive and unsustainable and in turn could lead to security of supply issues.

## Comments

### Investment

**3.A1: What are your expectations about the carbon price in 2020 and 2030? And how important a factor will it be when considering investment in low-carbon generation?**

It is difficult to assess the anticipated carbon price for 2020 and 2030 while there is uncertainty about whether the EU will increase its emissions reductions targets for 2020 from 20% to 30% and until the Government clearly establishes the emissions reduction targets for 2030.

The carbon price will only be one of a number of factors when considering investment in low-carbon generation and certainty of revenues will be extremely important.

**3.A2: If investors have greater certainty in the future long-term price of carbon, would this increase investment in low-carbon electricity generation in the UK? If so, please explain why.**

While the carbon price support mechanism will increase market revenues for low-carbon electricity generation this is unlikely to provide sufficient certainty for investment without the feed-in-tariff element of the Electricity Market Reform proposals.

**3.A3: How much certainty would investors attribute to a carbon price support mechanism if it were delivered through the tax system?**

Investors would not place as much certainty in a carbon price support mechanism delivered through the tax system as it would in a contractually based mechanism due to the political risk of change of the tax system.

**3.A4: In addition to carbon price support, is further reform of the electricity market necessary to decarbonise the power sector in the UK?**

AES agrees that in addition to carbon price support further reform of the electricity market is necessary to decarbonise the power sector in the UK in order to increase certainty of revenues.

### Administration

**4 R1: What changes would you need to make to your procedures and accounting systems**

**to ensure you correctly account for CCL on supplies to electricity generators?**

AES is not a fuel supplier.

**4.B2: How long would you need to make the necessary changes to your systems to account for CCL on supplies to electricity generators?**

AES is not a fuel supplier.

**4.B3: Please provide an estimate of how much the system changes would cost, both one-off and continuing?**

AES is not a fuel supplier.

### **Types of generator**

**4.C1: Do you agree that all types of electricity generators should be treated equally under the proposed changes? If not, please explain why.**

In principle AES believes that all types of generators should be treated equally however geographically AES believes that the existing CCL and fuel duty exemptions must be retained for fossil fuels used to generate electricity in Northern Ireland because of the unique circumstances of the SEM. If the existing CCL and fuel duty exemptions are not retained the costs of generators in Northern Ireland will be higher than generators in the Republic of Ireland thereby reducing their competitiveness and decreasing returns from the market.

**4.C2: Is there a case for providing additional or more preferential treatment for CHP? If so, what is the best way of achieving this?**

AES does not consider there to be a case for providing additional or more preferential treatment for CHP however neither should CHP be negatively impacted. CCL and fuel duty should not therefore be payable on fossil fuels used to generate heat.

**4.C3: Do you agree that tax relief should be considered for power stations with CCS? If so, what are the practical issues in designing a relief; what operational standards should a CCS plant meet in order to be eligible; and how might these issues differ for demonstration projects?**

AES agrees that tax relief should be considered for power stations with CCS. Relief should be granted on the basis of the volume of carbon that is captured and stored.

### **Imports and exports**

**4.D1: What impact would the Government's proposals have on electricity generators and suppliers that export or import electricity?**

The Government's proposals are likely to increase the quantity of electricity imported into



Northern Ireland and so the impact on the SEM needs to be considered separately. Currently there is 500 MW of interconnection between GB and the SEM however this will increase to 1,000 MW in 2012. This represents approximately 15% of peak demand and 45% of minimum demand which is clearly not marginal.

Historically the SEM imports electricity from GB and SONI and Eirgrid's recently published 2011-2020 All-island Generation Capacity Statement assumes this will continue. If however imports into the SEM were reduced or reversed, due to higher prices in GB, electricity prices in the SEM could increase significantly as higher cost local generation will be required to offset the reduction in imports.

Rather than introducing specific carbon price support proposals for the UK and potentially distorting investment in Europe the Government should work with the EU to develop the EU ETS in order to ensure a level playing field for all generators and suppliers in the EU.

#### **4.D2: What impact might the proposals have on trading arrangements for electricity?**

The proposals could either enhance or reduce market liquidity depending on their predictability.

#### **4.D3: What impact might the proposals have on electricity generation, trading and supply in the single electricity market in Northern Ireland and Ireland?**

The proposals will have a distorting effect on the SEM as the competitiveness of Northern Ireland generators will be reduced relative to generators in the Republic of Ireland who are in direct competition. This will lead to less scheduling in the market, lower returns and ultimately reduce profitability and sustainability. It is also likely to skew investment in new plant towards the Republic of Ireland and could lead to security of supply concerns.

There is also a risk that the SEM Committee will not permit the inclusion of the proposed CCL and fuel duty in generator bids and therefore the pass through to electricity customers. Failure to do so would result in Northern Ireland generators operating at a loss when they are the price setting plant in the SEM or when they are constrained on, and at lower margins when they are not the price setting plant. This would be both anti-competitive and unsustainable and again could lead to security of supply issues.

AES therefore believes that the existing CCL and fuel duty exemptions should be retained for fossil fuels used to generate electricity in Northern Ireland because of the unique circumstances of the SEM.

### **Carbon price support mechanism**

#### **4.E1: How should the carbon price support rates be set in order to increase certainty for investors, in particular over the medium and long term?**

Certainty for investors will be increased if the Government clearly sets out its carbon target price trajectory with a reasonable lead time for example three years. The rates should also be linked to a carbon market index.

#### **4.E2: Which mechanism, or alternative approach, would you most support and why?**

Rather than introducing specific carbon price support proposals for the UK and potentially distorting investment the Government should work with the EU to develop the EU ETS in order to ensure a level playing field for all generators and suppliers in the EU. It is also worth considering whether carbon price support is required if the Government's preference is to introduce a contract for difference based feed-in tariff.

Regarding the three options set out in the consultation paper AES would require more detail before expressing a preference however as noted in 4.E2 above any mechanism should provide a clearly set out carbon target price trajectory, a reasonable lead time and be linked to a carbon market index.

#### **4.E3: What impact would the proposals have on you carbon trading arrangements?**

AES would have to review and realign its risk management and carbon trading arrangements with whatever mechanism is adopted.

### **Future price of carbon**

#### **4.F1: Should the Government target a certain carbon price a) for 2020 and b) for 2030? If so, at what level?**

AES agrees that the Government should target a carbon price for 2020 and ideally out to 2030 however until the Government clearly establishes the emissions reduction targets for 2030 and the EU determines whether emissions reductions targets are going to be increase from 20% to 30% in 2020 it is difficult to see how any meaningful price can be set. AES is not in a position to suggest an appropriate target price.

#### **4.F2: What is the most appropriate carbon price for the UK to meet its emissions reduction targets in the power generation sector? How would this be affected by changes in the structure of the electricity market?**

As noted in 4.F1 above AES is not in a position to suggest an appropriate target price.

#### **4.F3: When would be the most appropriate time for introducing a carbon price support mechanism and what would be the most appropriate level?**

Reasonable notice, for example three years, should be given prior to introducing a carbon price support mechanism. AES is not in a position to suggest an appropriate target price

### **Electricity investment**

#### **5.B1: What impact would you expect the carbon price support mechanism to have on investment in low carbon electricity generation?**



While the carbon price support mechanism will increase market revenues for low-carbon electricity generation this is unlikely to provide sufficient certainty for investment without the feed-in-tariff element of the Electricity Market Reform proposals.

**5.B2: What other impacts would you expect carbon price support to have on investment decisions in the electricity market?**

The introduction of carbon price support will have a distorting effect on the SEM as the competitiveness of Northern Ireland generators is reduced relative to generators in the Republic of Ireland who are in direct competition. This is likely to skew investment in new plant towards the Republic of Ireland and could lead to security of supply concerns in Northern Ireland, particularly since 510MW of AES's plant is scheduled to close in 2015 and construction of the new interconnector between Northern Ireland and the Republic of Ireland has been delayed until approximately 2015-17.

Security of supply concerns are further compounded by the fact that Northern Ireland has set itself an aggressive target of 40% of electricity generated from renewables by 2020 which will predominately be in the form of on-shore wind. If new plant is incentivised to locate in the Republic of Ireland there may be insufficient conventional plant to back-up such large quantities of wind. Due to the unique circumstances of the SEM AES believes that the existing CCL and fuel duty exemptions must be retained for Northern Ireland.

Investment in new conventional plant in GB is also likely to be skewed towards Europe or interconnectors built in preference for the same reasons.

**5.B3: How should carbon price support be structured to support investment in electricity generation whilst limiting impacts on the wholesale electricity price?**

Setting the carbon price floor at the minimum level to attract the required level of investment and introducing the support in a clearly transparent incremental way will limit the impact on wholesale electricity price.

**Existing low-carbon generators**

**5.C1: Can you provide an assessment of the impact of the proposals on your generation portfolio and overall profitability?**

AES does not have any low carbon generation in its portfolio. The proposals are likely to negatively impact the scheduling of AES's conventional plant in the SEM which will lower market revenues and overall profitability and sustainability.

**5.C2: What would be the implications of supporting the carbon price for existing electricity generators and how should the Government take this into account?**

Supporting the carbon price will increase revenues for existing low-carbon generators and generate super-profits. Government should therefore seek to adjust existing renewable support mechanisms to ensure that the economic status quo of existing low-carbon generation is maintained.



## **Electricity price impacts**

### **5.D1: How do you currently manage fluctuations in the wholesale electricity price?**

In the SEM fluctuations in the wholesale electricity price are managed through contracts for difference between generators and suppliers.

### **5.D2: What difference will supporting the carbon price make to your business?**

Supporting the carbon price support will increase AES's generation costs relative to its competitors in the Republic of Ireland and therefore reduce AES's scheduling in the SEM. This will reduce market revenues and overall profitability and sustainability. It will also make Northern Ireland less attractive for investment in new conventional plant.

### **5.D3: As an electricity generator or supplier, how much of the cost of the carbon price support would you pass on to consumers?**

As a generator in the SEM AES is required to comply with generation licence requirement and a Bidding Code of Practice which set out the basis on which generators are required to bid. AES considers that the cost of the carbon price support clearly meets the definition of a short run marginal cost as set out in one of AES's Generation Licence conditions and as such would be recovered from customers through its bid in the SEM.

### **5.D4: As a business, how much of the cost of energy bills do you pass on to customers?**

AES is a participant in the SEM gross mandatory pool and therefore does not have any direct customers.

### **5.D5: How might your company or sector be affected and would be there any impact on your profit margins?**

Supporting the carbon price support will increase AES's generation costs relative to its competitors in the Republic of Ireland and therefore reduce AES's scheduling in the SEM. This will reduce market revenues and overall profitability.

### **5.D6: Do you have any comments on the assessment of equality and other impacts in the evidence base of the Impact Assessment, included at Annex D?**

AES does not believe that the geographic separation of Northern Ireland and the unique circumstances of the SEM have been adequately considered in the impact assessment.

In paragraph 89 of the Impact Assessment it states that the Government does not envisage that increasing the proportion of electricity into the UK would have significant implications for the operation of the UK electricity market or for the security of UK supply. As outlined in 4D1 interconnection between GB and the SEM will represent approximately 15% of peak demand and 45% of minimum demand from 2012 which could have a significant impact on electricity prices in the SEM and on security of supply.



Ireland. As generators in the Republic of Ireland will not be subject to the carbon support mechanisms the increased cost of fuel for Northern Ireland generators will place Northern Ireland generators at a competitive disadvantage to their Republic of Ireland counterparts.

