Environmental Audit Committee Inquiry

2007 Pre-Budget Report and Comprehensive Spending Review - Centrica's response

November 2007

Introduction

1. Centrica welcomes the opportunity to respond to the Environmental Audit Committee's inquiry on the 2007 Pre-Budget Report and Comprehensive Spending review. Our response focuses on the Government's current environmental fiscal strategy as it relates to both lower-carbon generation and energy efficiency

2. Centrica believes that environmental fiscal strategy can play a significant role in promoting a more sustainable society by sending appropriate market signals to influence investment decisions and behavioural change. It is important, however, that the practical limitations of fiscal drivers to change are understood, and that environmental fiscal measures work together in support of specific policy aims, and do not promote contradictory policy outcomes.

3. Whilst we recognise the significant steps that have been taken in recent years to utilise fiscal strategy in support of environmental goals, we believe that there is room for further improvement. It is also vital that such measures are themselves stable and sufficiently long-term in nature in order to provide the necessary long-term investment signals that are needed in many cases.

Tackling Climate Change, challenging targets

4. We recognise that climate change is the biggest single environmental issue the world has to face both today and in the future. We note the assessment highlighted in the Stern Review that the risks of the worst impacts of climate change can be substantially reduced if greenhouse gas levels in the atmosphere can be stabilised between 450 and 550 ppm C02 equivalent. The implication of that is that stabilisation in this range requires global emissions to be at least 25% below current levels by 2050. Further stabilising at or below 550ppm CO2e would require global emissions to peak in the next 10-20 years and then fall at a rate of at least 1-3% per year. We accept the validity of this argument.

5. Our view is that climate change is happening, and that human activity is contributing to it, so we therefore need to develop policies and action plans aimed at first slowing and, eventually, stabilising the processes which are causing the change. Whilst it may be difficult to achieve, we consider that a gradual slowing and then reduction of global greenhouse gas emissions is possible. We are committed to playing our part in that process, and to actively supporting Government policy and action plans aimed to achieve this.

6. As a leading energy company we are taking steps to help reduce our overall impact on climate change both directly through our own business activities, most notably by decarbonising our generation, and also indirectly through supply chain management and by helping our customers to use energy more efficiently.

7. We believe that the shift to a low-carbon economy will create significant business opportunities and that the market for low-carbon technologies is potentially vast.

8. In order to incentivise the necessary step-change in investment in low-carbon goods and services, a clear policy framework that establishes a long-term carbon price and therefore a long-term value in reducing emissions is required, together with specific support mechanisms were necessary.

9. Clear and binding emission reduction targets in the EU, and the UK, will underpin this framework by giving industry the confidence to invest in more expensive lower-carbon technologies and services. We therefore welcome the binding and unilateral EU target to cut greenhouse gases by 20% by 2020, and fully support the EU objective of a 30% reduction by the same year if international agreement can be found. We also support the introduction of legally binding targets in the forthcoming Climate Change Bill.

10. We also support the EU's objective of achieving significantly higher levels of renewable energy in the EU overall energy mix. We are concerned, however, that the 20% target is extremely challenging in the timescale identified. Consideration needs to be given to the capacity of both industry and the planning system to deliver, and the integrity of grid networks.

11. If a policy of high levels of renewables across Europe is pursued, it will be important to understand the interaction of policy mechanisms designed to achieve this with the EU ETS. In particular, we would be keen to ensure that carbon savings achieved through higher levels of renewable energy do not undermine carbon savings that can be made through investments in non-renewable but low-carbon technologies including clean coal and microCHP boilers.

12. Challenging targets are necessary, although not sufficient, to give industry confidence to invest in low and zero carbon technologies. What underpins that confidence going forward will be a policy and incentive environment that allows the investment to take place to meet targets, coupled with the removal of regulatory barriers including a simplification of planning legislation.

13. In order to reach significantly higher renewable energy targets in the UK, as well as greenhouse gas reductions, government will need to achieve a step-change in its climate change policy framework. We believe that given the right framework, UK industry will make the necessary investment that will enable this country to play a leading role in deploying to a global low-carbon future.

Implementing the Stern framework: carbon pricing

14. We believe that the free allocation of allowances to sectors which are able to recover the cost of allowances through their received price is the EU Emission Trading Scheme's fundamental flaw, and have strongly argued to mitigate the negative competitive distortions caused by this. There is clear evidence that the full opportunity cost of carbon established by the EU ETS is passed through to the price power generators receive via the wholesale market, and we would therefore support full auctioning of allowances to this sector at least.

15. Centrica recognises that some free allocation may be necessary in the short-term to those sectors facing international competition that is not similarly carbon-constrained, in order to prevent competitive distortions. If and when we progress to a future in which all industry globally is similarly carbon-constrained, the rationale for free allocation will be removed.

16. In the first two phases of the EU ETS, non-free allocation of allowances by Member States is restricted to a maximum of just 5% and 10% respectively. No auctioning was undertaken by the UK

government in Phase I and an auction level of 7% has been announced for Phase II, which will be taken from the free allocation that would otherwise go to the electricity generation sector.

17. As this sector faces no international competition and carbon costs can be, and are, recouped through the received price, we agree that this 7% should be taken from the generation sector. We would like to see the maximum 10% auctioned, and, ideally, a significant increase in the proportion of auctioning in Phase II allowed, although we recognise that this would have required EU agreement.

18. From 1st January 2013, we strongly support the elimination of any free allocation across the EU to the power generation sector. In the absence of full auctioning across the Scheme, we would like to see the EU move to instructing a minimum level of auctioning in all Member States in Phase III, and the UK government targeting auctioned allowances on the power generation sector.

19. Centrica understands and accepts that a balance needs to be struck between cutting carbon emissions at home and abroad, and that the UK needs to show some leadership in finding real carbon cuts at home. Project credits, however, have an important role to play in delivering global emission cuts which should be recognised.

20. Ideally, directly linking the EU ETS with other emission schemes outside the EU will help to deliver emission reductions at the lowest cost to the global economy, and will aid development of a more liquid market. This should only happen, however, when other schemes are established, and when the principles behind those schemes as well as their operation allow a direct linking.

21. In the absence of such direct linkages, project credits from the CDM and JI markets can act as important linking mechanisms and help to ensure that the EU ETS is not operating in a vacuum from the global economy.

22. We believe that projects developed under the Clean Development Mechanism deliver real and enduring carbon emission reductions in developing countries which currently do not have any emission reduction targets and, in the absence of legally-binding targets, open a pathway to Kyoto for many developing countries.

23. There is also substantial potential for technology transfer from these projects to other countries whether directly covered by the EU ETS or not. Allowing the use of credits for compliance under the EU ETS supports these project streams, supports innovation in UK business, and allows reductions to be made at lowest cost.

24. The UK is emerging as a market leader in the financing of these kinds of projects. Imposing low limits on the use of credits within the UK damages the ability of UK companies to invest in emission-reducing projects in the developing world, and might check the development of this important new market.

25. To protect the credibility of the EUETS and other international emissions trading, it is imperative that projects are subject to rigorous accreditation to ensure minimum quality standards are met. Within the CDM this role is carried out by the UNFCCC's CDM Executive Board and we are confident that this system is providing the necessary robust and rigorous assessments of proposed projects.

26. Where practical and material we are supportive of broadening the scheme to include other sectors and gases. It is vital, however, that the increased level of allowances as a result of broadening the scheme is robustly determined to ensure that the over-allocation seen in the first Phase is not repeated. Consideration should be given to running parallel schemes for new sectors for an initial period.

27. Significant harmonisation across the EU would help to remove the potential for any sector within an individual country to become uncompetitive with respect to its EU counterparts. Potential areas include accurate allocation, use of project credits, sector coverage and key definitions including that of installations covered by the scheme.

Implementing the Stern framework: technology policy
Carbon Capture and Storage

28. The EU has adopted an objective to stabilise global temperatures at 2 degrees above the pre-industrial average. If this can be achieved, significant impacts to both biodiversity and human society can still be expected. Above this rate, there is a recognised serious risk of runaway climate change. There is therefore an imperative to bring forward lower-emitting generation as quickly as possible.

29. In parallel, the UK is facing a significant power generation gap in the next 15 years. Whilst industry will respond with new generation, the government policy and regulatory framework will shape the type of investments made. In the absence of clear direction, and as new nuclear can not be operational in time to meet this generation gap due to its long build-cycle, new generation will be heavily biased towards gas and unabated coal.

30. The alternative is to allow unabated coal plan to be built in the UK, with the associated significant carbon emissions until such time as the technology is ready, and it becomes economic. Current estimates are that this would imply a sustained carbon price of around E50 a tonne, more than double current EUETS prices. Giving the go-ahead to build new coal generation without any associated carbon reductions through carbon capture and storage will increase national carbon emissions.

31. We believe new coal generation should be built with pre-combustion technology, committing to carbon capture from the outset. This will give the best opportunity to make an immediate impact on UK emissions through encouraging the early deployment of cleaner generation to fill the expected generation gap over the next decade. In short, it is difficult to see how carbon reduction targets can be met without the early deployment of carbon capture and storage.

32. As a result of government rhetoric around ensuring the UK is a global leader on climate change, as well as a stated desire for UK industry to develop carbon capture and storage technologies, industry responded extremely positively with a number of proposed projects. We believe around 3GW of IGCC with CCS was targeted for operation by 2014.

33. Whilst pre-combustion capture technology is available for deployment now in bulk, post-combustion capture development is in its infancy and is several years away from commercial development. The largest post-combustion plant worldwide is under 1/10th commercial size.

34. In that context, we were concerned at the decision announced on the 9th October this year to exclude pre-combustion technology projects from the Government's forthcoming UK CCS competition in favour of post-combustion projects only.

35. Excluding pre-combustion capture technology in favour of post-combustion capture technology means bypassing a cheaper method for capturing carbon in favour of a technology largely used to retrofit existing coal plant. Many existing UK coal stations will be closed before the technology can be developed to retrofit. Whilst we can understand the decision in an international context we consider that there is a limited role for post-combustion technology in the UK.

36. Global deployment of coal-fired power plant in the next decade meanwhile will be substantial. Establishing pre-combustion IGCC as a commercial reality in the UK, therefore, which can then be exported, can make an enormous and rapid impact on carbon abatement worldwide.

37. Given the not insignificant number of unabated coal power stations that will continue to operate worldwide over the coming decades, we accept an important role for post-combustion technology and support its development. If the UK government is serious about maintaining the UK's strong leadership role in climate change, we consider that there is a strong case for supporting both technologies to full deployment. That would give the UK the best opportunity to become a world leader in CCS technology whilst meeting domestic and international climate change targets.

38. Centrica does not believe that either pre or post-combustion technologies will be commercially viable in the short to medium term without government support.

39. In the longer-term, we believe that the primary support mechanism for generation with carbon capture and storage should be a carbon price established through the EUETS. Given the political uncertainty surrounding the scheme going forward, and the current Phase II price for carbon, a bridging mechanism may well be required in order to bring projects forward sooner rather than later. In addition, although the individual components of CCS are not new, further support is likely to be needed to reflect first-of-kind integration risks.

40. These mechanisms could include bringing CCS into a properly functioning EUETS, which we are expecting for Phase III of the scheme, enhanced capital allowances, perhaps similar to those provided to good quality CHP, or direct funding support, possibly from the auctioning of emission allowances or the Environmental Transformation Fund, or allowing electricity generated to be eligible for LECs.

41. It is important to note that the ongoing higher-than-unabated-coal plant costs may be best supported by a relatively modest ongoing mechanism rather than large up-front capital grants. In this instance the project developer will continue to take technology risk whilst the support mechanism provides a bottom-stop to carbon market price risk.

42. Centrica is working with Progressive Energy to develop an 850MW (nominal) Integrated Gasification Combined Cycle (IGCC) coal fired power station with pre-combustion CO2 capture on a brownfield site on Teesside. We selected to develop IGCC technology due to its superior economic and technical performance when integrated with CCS. We have named the proposed project Eston Grange.

43. If built, the combined plant will be the UK's lowest emitting fossil fuelled power station, capturing around 85% of the CO2 emissions from the power station, with a full long term storage solution in the North Sea. It would be nearly three times as clean as existing gas fired power stations, and around six times cleaner than conventional coal fired plants.

44. This innovative project would be the first large scale IGCC power station with CCS in the world. We are intending to create a new CO2 disposal network as part of the project which will eventually enable the disposal of CO2 from other process and power plants in Teesside and the North East, thus creating a unique infrastructure having wider benefits to the area. The plant could also produce de-carbonised hydrogen in bulk, providing a potential source for fuel cell and other hydrogen initiatives planned for the area.

45. The Eston Grange power project is being developed within a special purpose company; Coastal Energy Ltd. Coastal Energy is a joint venture between Centrica plc (85%) and Progressive Energy Ltd (15%). Centrica is a major UK energy supply company better known through our British Gas brand, and Progressive are a specialist power station developer. Ultimately the power station will be fully owned and operated by Centrica, and will provide electricity to our British Gas residential and commercial customers. The CO2 disposal network is being developed by COOTS Ltd, which is a 55-45 Centrica/ Progressive Energy joint venture.

46. We are committed to undertaking all the necessary steps to enable a full investment decision to be made around the end of 2008, which, if positive, would allow completion and first electricity some time between 2012-14. Full economic feasibility work and engineering design work is scheduled to take place over the coming months, and we are detailing the purchase contract for the land involved. We are working with our environmental consultants on an Environmental Impact Assessment, and a planning application to develop the project site on the South Bank of the River Tees could come early in 2008. Provided the project proves to be commercially and technically viable, we believe these measures will allow us to make an investment decision with limited delay.

47. We are currently considering the full implications of the government's decision to restrict the UK CCS competition to post-combustion technologies. We are also considering in parallel the potential for alternative transition support mechanisms to recognise first-of-kind risks and the ongoing higher-than-unabated-coal costs of generating, capturing, transferring and storing the carbon

48. In order to progress our project further we are looking for a clear statement of intent from Government that the necessary support mechanisms will be forthcoming, although the mechanisms themselves would not need to be in place until a construction decision was made some time later.

Implementing the Stern framework: technology policy
Microgeneration

49. Centrica is pioneering the development of micro combined heat and power technologies and sources of renewable and cleaner energy such as fuel cell powered boilers, heat pumps and solar heating. We believe that these technologies can have an important role in reducing domestic carbon emissions and cutting customer bills.

50. These emerging technologies, however, will need some support to become commercially viable. Any effective support mechanism for microgeneration will need to recognise the specific deployment issues involved, and the differing needs of different microgeneration technologies.

51. We are aware of the current debate about the potential for a feed-in-tariff for microgeneration to deliver a significant increase in installed capacity. We are currently considering which support mechanisms should be introduced for microgeneration and are considering the potential for feed-in tariffs for this sector as part of a wider policy review. Our main concerns about a fit mechanism are the cost (significant in Germany), the mechanism's ability to deliver the most effective technology in the most efficient way, and the failure of the mechanism to adequately drive down costs. We are also unclear about how a fit would be introduced into the UK's competitive market structure

52. In this context, we remain of the view that the most appropriate and effective support mechanism for domestic-scale microgeneration is some form of capital grant accessible by households.