RESPONSE OF THE BLACKWATER AGAINST NEW NUCLEAR GROUP

Introduction

The Blackwater Against New Nuclear Group (BANNG) has already responded to the previous consultations on the financing of nuclear decommissioning and waste handling regulations and on a methodology to determine a fixed unit price for waste disposal etc. (see BANNG, 2010a). In our response we argued any attempt to provide a FUP was plagued with so many unknowns and uncertainties that the exercise becomes unrealistic and should be abandoned in favour of a mechanism whereby the full cost of managing and disposing of wastes is achieved as and when they arise. We also considered the proposals relied on assumptions that, if not fulfilled, were liable to relieve nuclear operators of substantial financial risks which would inevitably have to be borne by the taxpayer. And we indicated that the risks, both financial and radiological, would be inequitably borne by communities close to waste facilities and especially to future generations around storage or repository sites.

We have noted the proposed changes made to the methodology of waste transfer pricing and to the guidance for funded decommissioning programmes contained in the present consultation. In our view these are likely to increase the certainty over costs to operators while transferring more of the financial risk to the taxpayer. However, we regard the changes as marginal; in no way do they address the fundamental points we raised in our previous response. Our basic concerns still stand. **Therefore, we are resubmitting our previous response since it contains our substantive analysis and arguments against the Government's proposals for funding decommissioning and waste management costs arising from nuclear new build.**

The following response is intended to reinforce our previous arguments and to draw attention to the problems of attempting to calculate a realistic costing mechanism in the face of many uncertainties over such long time-scales. We recognise that in its responses to the March consultation the Government has considered but rejected most of the criticisms and suggestions we have made. However, we believe our arguments retain their relevance and invite the Government to reconsider rather than reject them out of hand. We have taken the two documents together referring where necessary to them respectively as 'FDP' and 'WTP' where necessary. As before we have organised our comments under thematic headings.

1. COST UNCERTAINTY ARISING FROM WASTE MANAGEMENT POLICY

A fundamental concern affecting cost and price calculations is the lack of a robust waste management policy. The Government is committed to geological disposal and in various consultations on new nuclear energy it has stated that effective arrangements will exist for the management of long-lived, highly radioactive solid wastes. The claim is repeated here, that the Government 'is satisfied (i) that geological disposal is technically achievable, (ii) that a site for a GDF will be identified and (iii) that waste can be kept in safe, secure and environmentally acceptable interim storage until it can be disposed of' (WTP, 2.2.22, pp. 16/17 and

3.2.5, p.27). As we have argued many times and notably in our responses on strategic siting, nomination of sites and our two substantial responses on the NPS consultations (BANNG 2008, 2009, 2010b, 2010c) we are not convinced of the evidence for the Government's confidence. Although there is a presumed scientific consensus favouring disposal, the realisation of a fully robust safety case at a specific site is a long way off. Although there is a process in place for seeking volunteer communities willing to host a GDF, this is at a very early stage of tentative expressions of interest.

Indeed, it may very well be argued that effective arrangements are unlikely to exist within the timescales indicated by Government. There is a possibility, it might even be said a likelihood, that a repository will not be ready for waste emplacement by 2040. In any event the repository is intended for disposal of legacy wastes with the uncertain expectation that it may also be available for new build, though not until well into the next century. The possibility that a repository may be subject to long delay and even that it may not materialise at all cannot be discounted. Certainly, the prospect that highly active wastes may be left in store until well into the next century, and possibly indefinitely, cannot be ruled out.

2. UNCERTAINTY OF COSTS OF GEOLOGICAL DISPOSAL

The Government's response to the problem of cost uncertainty is to set a 30 year Deferral Period from commencement of operating the power station, giving a better prospect of calculating costs as the repository programme develops. It is further proposed to give operators more certainty by applying a Cap, a final maximum price, with a Risk Fee to take account of the residual risk of higher costs to the taxpayer. In BANNG's view these modifications are unlikely to make any substantial improvement to the estimation of costs and price. Given the uncertainties over the technology, siting and timing of a possible repository, BANNG considers any estimation of costs to be highly speculative.

The Government concedes that 'progress in MRWS might be slower than currently anticipated and hence that significant cost increases might remain even at the end of a 30-year Deferral Period' (WTP, 2.2.12, p.15). It should be pointed out that even on the Government's most optimistic assumptions, new build wastes will not be ready for emplacement until 2130 once the disposal of legacy wastes has been completed (DECC, 2010, p.17). By that time it is quite conceivable that many of the initial assumptions about costs, institutional controls, safety features, technological and engineering considerations will have changed immeasurably. The idea that a capped WTP set during the early stage of repository operation can incorporate a myriad of uncertainties and unknowns that may occur over the long time-scale (c. 130 years) before emplacement and beyond is not so much a feasible as a fanciful exercise. Consequently,

BANNG believes that the uncertainties over timing, siting and design of a GDF make it impossible to calculate costs of disposal. Therefore,

BANNG does not consider the application of a 30 year Deferral Period and a Cap on the Final Price will overcome the problem of calculating realistic costs and price in conditions of great uncertainty over long time-scales. There is the

distinct possibility that a longer Deferral Period will lead to under-provision of funds by operators and that a Cap may increase the risk of higher costs to be borne by the taxpayer in the long term.

We, therefore, reaffirm our previous conclusion that the idea of setting a WTP should be abandoned and that operators should instead be responsible for paying the full costs of managing and disposing of wastes as and when they arise.

3. UNCERTAINTIES ASSOCIATED WITH LONG TERM STORAGE

Government policy is predicated on 'existing arrangements' for the long term management of radioactive wastes which may not be fulfilled in the expected timescale or by the envisaged disposal route. In that case, long term storage or some other option may be required. Indefinite storage raises a number of problems, some foreseeable, others unknown. Among the problems are:

- the need for encapsulation, repackaging and the refurbishment of stores or provision of new ones;
- managing wastes at low lying sites in deteriorating conditions on coasts increasingly vulnerable to inundation through rising sea levels and storm surges resulting from climate change;
- the absence of institutional continuity especially where an operator ceases and a successor cannot be found to take on the costs and risks of managing the wastes;
- passing the cost, effort and risk of managing the wastes to generations in the far future who may lack the knowledge, commitment and resources to deal with the wastes;
- the risks involved in moving wastes to regional or central stores or ultimately to a repository.

All of these issues illustrate the uncertainties facing long term management and highlight the problem of making adequate provision in the cost estimates. The basis for cost estimates under the Government's projected regime assume a fairly straightforward progression leading up to a point of transfer where the Government takes title of the wastes and assumes subsequent risk. At this point a final lump sum payment is made which includes an allowance for a risk premium to take account of all remaining waste management costs from Transfer Date to Assumed Disposal Date including decommissioning of stores if necessary (FDP, p.39). 'If geological disposal facilities are not available at the Assumed Disposal Date then the intention of the Government would be to meet costs for maintaining the interim stores after the Assumed Disposal Date from the risk premium included in the Waste Transfer Price' (*Ibid*, 2b.38, p. 39).

BANNG believes it will be impossible to take into account all the possible and foreseeable problems with the long term management of wastes, let alone make any

contingency provision for those which are unknown. If the current assumptions about progress towards geological disposal are not met then the only available foreseeable option will be long-term storage on site or at a regional or central store. Delays to the disposal programme are possible and, given the physical and human problems of managing the sites in difficult conditions, the costs could be ramped up way beyond what is presently anticipated. In the event of the Government's programme for geological disposal failing, the costs and the risks of continuing storage will fall on the taxpayer.

BANNG believes the risks to the disposal programme are sufficiently great to render a rational or realistic calculation of final costs impracticable. We maintain our view that costs should be met in full by the operator as and when they arise. However, we recognise that operators may be unwilling to pay a sufficiently high risk premium to cover foreseeable eventualities. In that case there seem to us to be two options for costing waste management:

Either, (i) the Government should indicate that it will meet any costs over and above those calculated in the WTP and risk premium which operators are asked to meet. This would mean the Government explicitly acknowledging the possibility of an unlimited subsidy to the nuclear industry

Or, (ii) the Government should recognise the uncertainties of its waste management programme are too great to justify it proceeding further with the development of FDPs and WTP at the present time.

The implication is that the new nuclear programme should not proceed unless and until the problems of waste management have been solved.

4. ABILITY OF OPERATORS TO MEET COSTS

We have set out above reasons why we do not think operators will be willing to meet the high risk premiums that should be set to meet unforeseen eventualities. Indeed, there must be doubt that operators will be willing, or able to meet the costs of long term waste management proposed in the financial regime. The need for greater cost certainty has already been conceded with the proposals for a 30 year Deferral Date and the arrangements for the Cap and for final lump sum payments. All this amounts to a form of subsidy by any other name. In addition the Government 'recognises that there is substantial uncertainty over waste disposal costs, but does not accept that this means that a price setting methodology is not possible' (WTP, 2.2.30, p.19). We disagree and, for that reason, have argued that the exercise should be abandoned in favour of a more realistic policy based on meeting costs as they arise.

Even this approach will prove difficult to implement. The Government 'agrees with those respondents who identified risks around the ability of energy companies to meet liabilities in the very long term, particularly after the end of electricity generation when revenues have ceased' (WTP, 2.2.19, p.16). We find the Government's

approach to the market and the nuclear operators aspirational and overly optimistic. According to government,

> 'The operator must demonstrate that the plans set out in the FDP for the decommissioning of the site and for the management and disposal of waste arising are realistic, clearly defined and achievable, and are capable of being undertaken in a way which is consistent with the requirements and expectations of the relevant safety, security and environmental regulators' (FDP, 1.13, p.12).

For all the reasons we have set out in this and our previous response, we do not think it realistic to lay such a task on operators who could be quite incapable of fulfilling their plans. Over such long time-scales and in conditions of such uncertainty they may fail to make sufficient provision to meet all the costs. It is possible that Government plans and policies will change over time, perhaps quite fundamentally, making it more difficult to make appropriate provision and causing a greater burden to fall on the taxpayer and upon future generations.

In BANNG's view the liability for costs of long-term management should fall to the operators as and when they arise. Under the WTP regime the cost is likely to be fixed at some point during operation of a power station. Even with the proposed 30 year Deferral Period, uncertainties are likely to arise over decommissioning, waste handling and transfer costs especially if the Government's disposal programme is delayed or abandoned. In the event that insufficient provision is made, costs will fall disproportionately on taxpayers in future generations. BANNG considers this to be inequitable and this further underlines our view that costs must be fully provided for as and when they arise. We, therefore, urge the Government not to proceed further until it can be conclusively demonstrated that costs can and will be fully met at the time they are required.

5. NEED FOR PUBLIC AND STAKEHOLDER INVOLVEMENT

We do not consider it appropriate that FDPs and the WTP are matters solely for negotiation and agreement between Government and nuclear operators. These are matters of considerable public interest, involving the financial aspects of the implementation of the waste management programme. The proposals for FDPs and for a WTP involve a number of interests, not least communities now and in the future living near nuclear sites. They have a stake in the methods of waste management, in the timing of decisions and in the cost and risks involved. Waste management is a process, evolving and changing over time. Our proposal for meeting costs as they arise fits into such a process, unlike the proposal for a WTP which is fixed at a point in time. Viewed as a continuing and changing process it makes sense to ensure those affected are consulted and able to participate in the decision making process as it evolves. This would give future generations an active voice in the process and go some way towards meeting the principle of intergenerational equity.

BANNG believes there must be public consultation and involvement in the process of developing FDPs and that local communities now and in the future

should be involved in decisions on the implementation and timing of waste management proposals.

Finally, BANNG's response to this consultation is intended to provide a constructive input to the discussion of financing waste management plans for new build. It does not, in any way, indicate any support for the Government's plans for new build. Our position on those plans and on the proposals for Bradwell in particular is clearly stated in our responses to other consultations.

Professor Andrew Blowers, OBE,
On behalf of the Blackwater Against New Nuclear Group

8 March, 2011

REFERENCES

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