

RESPONSE TO DEPARTMENT FOR ENERGY AND CLIMATE CHANGE CONSULTATION

METHODOLOGY TO DETERMINE FIXED UNIT PRICES FOR WASTE DISPOSAL AND UPDATED COST ESTIMATES FOR NUCLEAR DECOMMISSIONING, WASTE MANAGEMENT AND WASTE DISPOSAL

SUMMARY

The Environment Agency welcomes the opportunity to respond to the Department for Energy and Climate Change's consultation on its proposed methodology to determine fixed unit prices for the disposal of radioactive waste and spent fuel from new nuclear power stations and on updated cost estimates for nuclear decommissioning, waste management and disposal. We are aware that this consultation is continuing under the new Government.

The Environment Agency endorses the Energy Act 2008 requirements that operators of any new nuclear power stations must have approved Funded Decommissioning and Waste Management Programmes (FDP) that would provide funding to decommission the power station, to manage and dispose of its spent fuel and radioactive wastes and to restore the site for future use. We believe that securing sufficient funds over the generating lifetime of any new power station is essential to avoid the problems of unfunded liabilities that the Nuclear Decommissioning Authority is now dealing with. Ensuring robust cost estimates and prices are set for radioactive waste and spent fuel disposal is a key component of this approach, and is essential to allow sound planning for early decommissioning of reactors after the end of their generating life. We believe that the proposed methodology should help to deliver this.

The Environment Agency's position on nuclear power is that we:

- recognise nuclear power's role in providing low-carbon electricity generation as part of the national energy mix
- insist that nuclear installations achieve high standards of safety, security, environmental protection and radioactive waste management; and
- believe that Government and the Nuclear Decommissioning Agency should demonstrate a credible commitment to making progress with geological disposal of radioactive waste.

We believe that the absence of a Geological Disposal Facility is the principal reason for the uncertainties in the cost estimates for waste disposal, which in turn means that a significant risk premium is likely to be necessary to ensure the public purse is protected.

1.0 ENVIRONMENT AGENCY COMMENTS

Proposal for Government to take title to wastes at the end of decommissioning

- 1.1 The consultation document proposes that, once a geological disposal facility is available, priority will be given to existing legacy wastes. It further proposes that Government will take title to spent fuel and intermediate level wastes following decommissioning, aside from its interim waste stores, of the new nuclear build power station until access to a Geological Disposal Facility (GDF) is available. We believe that the delay in disposing of new build wastes and the need for Government to be responsible for and manage them, potentially over an extended period, could be avoided if a GDF was available earlier so that legacy wastes could be dealt with earlier and access to the facility for new build wastes was possible at the end of decommissioning.
- 1.2 During the initial construction phase for new nuclear power stations we do not believe that it is very likely that building of all the waste stores that will be needed over the full lifetime will be undertaken at the outset. It is more likely that additional waste facilities will be constructed during the operational life of the station in time for when they are needed. We believe that early access to a GDF could avoid the need for building additional interim storage, and making possible cost savings that could perhaps be shared between an operator and Government.
- 1.3 For these reasons, we believe it is important to make progress on securing a GDF and to optimise its use. We suggest that prioritisation of the disposal of legacy and new build waste should be reviewed once a GDF is available to optimise disposal arrangements.

Proposal for an Option for Operators to Request Deferral of Date of Fixing the Unit Price for Waste Disposal

- 1.4 We support the proposal that operators can request deferral of the date of fixing of the unit price for waste disposal on the basis that, at that later date, there should be greater certainty about the costs of disposal and so a lower risk premium could be applied. However, we believe uncertainties relating to the detailed siting of the GDF will only be reduced if Government and the Nuclear Decommissioning Agency make good progress towards its implementation. We believe that the Government should set milestones for this GDF programme as this would help to give greater confidence that uncertainties in waste disposal costs will be reduced.
- 1.5 We note the proposal for a deferral period for fixing the price of waste disposal of up to 10 years after the start of electricity generation. Given that the purpose of the deferral is to enable greater certainty on the cost estimate, we believe it would be preferable if the deferral period were linked to a milestone on the GDF programme. There could be a backstop, such as a maximum period of deferral from start of generation, that is set so that there is still time during the electricity generating phase to recoup any under funding.

- 1.6 In any proposal to defer setting fixed costs of waste disposal we believe it will be important to set an interim cost with the overriding principle that there is good confidence that the fund at the end of the deferral period will be sufficient to cover likely waste disposal costs.

Proposals for the “Unit” for Fixed Unit Price Waste Disposal

- 1.7 We note the proposals that for intermediate level waste, a fixed cost per unit volume will be set, and that for spent fuel, a fixed cost per unit of electricity generated (p/kWh(e)) will be set. Whilst we believe that this approach is acceptable, an alternative for spent fuel could be to set the unit cost based on the thermal energy generated by the reactor (p/kWh(t)). This latter parameter is more closely related to spent fuel characteristics.
- 1.8 We suggest that the fixed unit costs for intermediate level waste and spent fuel should be related to an acceptable characteristics “envelope” for the waste and spent fuel so that, if an operator modified its operations, for example producing spent fuel of a higher burnup, any cost implications for waste disposal would be picked up in a revised unit price.

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