

Avoiding Economic Armageddon

By Dr David Lowry*

“As to the nuclear industry ...the coalition agreement commits us to no public subsidy for nuclear power.”

- **Danny Alexander MP, Chief Secretary to the Treasury, Official Report, 17 June 2010, Column 1052**

Introduction:

I have already made several points in a round table stakeholder consultation meeting convened by Dr Tim Stone at a hotel in London on 17 April 2008, focused upon the draft *Funded Decommissioning Programme: Guidance for New Nuclear Power Stations*. Unfortunately, when the Government response to the public consultation held in Spring 2008 was published in September 2008, my points were not addressed.

In light of this, I am unconvinced that re-iteration of the detailed points made on nuclear costing of accidents and incidents caused by malevolent adversaries (such as terrorists) involving nuclear waste materials in transport or emplacement in a repository would serve any purpose. However, now there is a different government and different ministers, I have decided to present a short summary of points already made, especially as the new administration has a very clear opposition to subsidizing commercial nuclear activities, as was made clear in the quote by the current Chief Secretary to the Treasury, cited at the head of this short submission.

Substantive issues:

In my view, despite 107 pages of text in the consultation paper, it is actually a spurious exercise, presenting biased guesstimates as real analysis, with a pre-determined end-point, which has the substance designed to fit a questionable conclusion. It is clear the previous Labour Administration was determined to remove legitimate cost barriers to new nuclear build, and transfer the liabilities to future taxpayers.

The most accurate statement in the entire document is found at section 5.1.3, on page 63, where it says “It is important to be cautious in estimating total costs as there are considerable uncertainties in a number of areas.”

Two areas of uncertainty not even addressed are accidents and terrorist intrusion. Although it could be said that these are incorporated in the risk assessment, I can find no evidence of this in the paper or the so-called “worked example.”

It is illustrative to look at a recent operational accident, on the Deepwater Horizon drilling rig in the Gulf of Mexico in spring 2010, in another energy industry - the oil

sector - whose accident consequences are typically much less environmentally damaging and economically devastating than serious accidents involving radiological releases.

Following a meeting in the White House with the BP chief executive, President Obama issued a statement, which inter alia, stated:

“Currently, under federal law, there is a \$75 million cap on how much oil companies could under certain circumstances be required to pay for economic damages resulting from a spill such as this. That amount obviously would be insufficient. That’s why I’m pleased to announce that BP has agreed to set aside \$20 billion to pay claims for damages resulting from this spill. This \$20 billion will provide substantial assurance that the claims people and businesses have will be honored.

He added:

“ It’s also important to emphasize this is not a cap. The people of the Gulf have my commitment that BP will meet its obligations to them. BP has publicly pledged to make good on the claims that it owes to the people in the Gulf, and so the agreement we reached sets up a financial and legal framework to do it.”

(Statement by the President After Meeting with BP Executives, 16 June 2010

<http://www.whitehouse.gov/the-press-office/statement-president-after-meeting-with-bp-executives>)

This should be contrasted with philosophy adopted in the Fixed Unit Price (FUP) or Expected Fixed Unit Price (eFUP), which will allow the polluter ie the creator of the radioactive wastes, to have their costs capped, and any additional costs will be met by future taxpayers, who, incidentally, will not even have been the beneficiaries of the nuclear generated electricity which gave rise to the waste. This is thus an open-ended, unquantified – but in the case of an accident involving considerable uncontrolled release of radioactivity into the environment from radioactive wastes, or a terrorist incident with the same massive economic, societal and ecological impact – and is therefore a huge subsidy.

The entire proposal is a deliberately constructed scheme to create structural inter-generational inequity, and as such is diametrically opposite to all principle of sustainability. Most salient for ministers, it is contrary to their own policy opposing subsidies from the civil nuclear sector.

My final point is in respect of an assertion found at Section 3.2.26 on page 23 of the consultation paper, which asserts:

“The Government considers that over such very long timescales it is better placed than an operator to manage cost risks.”

I fundamentally disagree with this proposition, as should ministers in the coalition Government. In an interview published in the Times newspaper in May 2010, the Secretary of State for Energy & Climate Change said:

“I’m not ideologically opposed to nuclear. My scepticism is based on whether or not they can make it work without public subsidy. One of the things the coalition agreed with some passion in the current circumstances of fiscal restraint was that there will be no public subsidy for nuclear power.”

The Times then reported that even support in the event of a disaster was out of the question, he said.

“That would count as a subsidy absolutely. There will be no public bailouts . . . I have explained my position to the industry and said public subsidies include contingent liabilities.”

(Nuclear will not get atom of help from this Government, says Chris Huhne
The Times May 15, 2010,
<http://www.timesonline.co.uk/tol/news/politics/article7127202.ece>)

In my judgement, this demonstrates the liabilities must remain with the creator of the nuclear waste, not ultimately with Government. The waste creators should be required to obtain appropriate private insurance to cover all liabilities, including contingent liabilities from accidents or terrorist incidents, and if they are unable to secure this, the safety, security and environmental protection regulators should refuse to licence the construction or operation of any new nuclear plants in the UK.

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Annex

I would also like to add my private personal endorsement of the points raised by GreenpeaceUK in their own concerns with consultation proposals set out below. They re-inforce, using different language, the key points set out in my own submission

Chapter 3: The methodology to determine a Fixed Unit Price

1 Do you agree or disagree that prospective operators of new nuclear power stations should be given the option to defer the setting of their Fixed Unit Price? If so, do you agree that this deferral should be limited to 10 years after the nuclear power station has commenced operation? Do you have any comments on the way the Government proposes to determine an expected Fixed Unit Price as the basis for an operator's interim provision in the event that they choose to defer the setting of their Fixed Unit Price?

Answer:

We disagree with the proposals for either an eFUP or FUP. The proposals, put forward by the Labour Government, must be rejected. If the industry wants new build it should be made to pay the full price of waste disposal - up to the time of disposal - whatever the costs. The Government must enact legislation on this.

A FUP is effectively a cap on liabilities which leaves the taxpayer at risk of having to find additional funds. Setting a FUP in the very near future is plainly not acceptable to the industry hence the proposal for an eFUP. The eFUP is meant to allow for greater certainty on disposal - if such certainty can be gained within the proposed ten years after reactor operations commence. Earlier efforts to accurately estimate costs for waste and spent fuel management and disposal have been shown to have failedⁱ, yet we are now being asked to assume the methodology is correct for setting a FUP some years hence (and that other costs estimates and methods for arriving at them will also be correct). This is clearly untenable.

Instead of proceeding with this consultation the Government should re-examine waste funding arrangements. Operators should be made to put away the amount of money necessary to deal with the wastes and spent fuel as and when they are created. Operators must put waste funding before paying out dividends to investors. There does not seem to any guarantee against "the investor first, waste fund second" scenario happening again (as was with British Energy when it almost went bankrupt in 2002).ⁱⁱ Funding cannot be allowed to be dependent on accruing interest to make up the majority of the funds - as is currently proposed.

Question 2

Do you agree or disagree with the proposal that the Schedule for the Government to take title to and liability for an operator's waste should be set in relation to the predicted end of the decommissioning of the nuclear power station? Do you have any comments on the way the Government proposes to recoup the additional costs it will incur in this case?

Answer:

We disagree. The Government must reject this proposal. Operators must remain financially and legally liable for their waste and spent fuel until such time as it can be disposed of - if and when that happens. That way if there are additional costs

e.g. extended storage, it is the industry that has to pay any extra monies needed. If the Government were to take title and liability to the wastes and spent fuel at the end of reactor decommissioning there is a risk that taxpayers will have to subsidise further care and maintenance of the wastes and stores. The process put forward by the last Government does not all for public or Parliamentary scrutiny to review any of potential cost increases. The continuing lack of transparency by DECC on this, in its decision not to publish cost modelling data (para 5.1.4) is indicative of closed door nature of the discussion around these issues.ⁱⁱⁱ This is not acceptable. The Government should release all information relating to cost estimates.

The consultation claims that because of the very long timescales involved it considers the Government is better placed than an operator to manage cost risks^{iv}, so it will take title and liability earlier in line with the operator's decommissioning timetable, rather than in line with the estimated availability of a GDF. This is another way of saying the risk will transfer to the taxpayer. Operators should be made to pay for all costs for waste and spent fuel management which fall outside of FUP funding. There is a risk that shared facilities for legacy and new build (e.g. for spent fuel encapsulation) could also lead to taxpayer subsidies - particularly if the monies for these are paid as a lump sum when title and liability is transferred.

Question 3

Do you agree or disagree that the proposed methodology to determine a Fixed Unit Price strikes the right balance in protecting the taxpayer, by taking a prudent and conservative approach to cost estimation, while facilitating new nuclear build by providing certainty to operators? What are your reasons?

Answer:

It is not possible to determine if the proposed methodology to determine a FUP is correct. The consultation did NOT contain all the relevant information to determine whether DECC's calculations are correct. Too many uncertainties remain. This consultation is just one of many actions taken to facilitate new build rather than stopping the process to allow for a full examination of the costs and the uncertainties. It is clear the benefit of this exercise, by the previous government, was to favour potential new build operators over the interests of taxpayers.

As has been noted, the idea of the taxpayer "facilitating new nuclear build" by accepting the risk that cost estimates made now about something which will not happen until 2130, in order to provide "certainty to operators" is verges on the reckless. If utilities are not prepared to accept the risks and the uncertainties associated with all waste management and disposal costs they should opt for other forms of low carbon generation or efficiency measures with lower risks.

Question 4 Do you agree or disagree with the proposed approach to determining an operator's contribution to the fixed costs of constructing a Geological Disposal Facility? What are your reasons?

Answer:

The consultation makes it clear there are many uncertainties over the GDF. Apart from the issue of the geology of any GDF, there are many other technical, social/political and financial issues around the GDF. For example, the issue of voluntarism for the GDF is barely mentioned in the document, yet there is an overwhelming assumption in the whole cost modelling that there is a community which will accept new build waste and that a second GDF would only be considered in light of a much larger than planned fleet of new reactors.

What if no new build waste is accepted into the 'first' GDF? The issue of the inventory for a repository has not yet been discussed by the current Managing Radioactive Waste Safely Partnership in Cumbria. The result of any discussions, when they do take place, may be that they will not accept new build waste being disposed of with legacy wastes - or may do so only up to a certain point (in terms of volume or time). The actual community asked to host the repository (as opposed to those involved in the Partnership now) may object to taking legacy *and* new build wastes and spent fuel. The consultation makes too many assumptions about the GDF for any decisions now to be at all realistic or guaranteed.

Even if all such matters were resolved - and they may not be for many years - the idea of new build operators paying possibly a relatively lower proportion of the costs, when their wastes could clearly contribute to a significant increase in the GDF costs, is not acceptable. The volume of new build waste in addition to that of legacy waste is estimated at 10%. New build spent fuel could add 50-55% to the volume over that of legacy high level wastes and spent fuel - but there is no mention of the fact the new build waste will contain three-fold the amount of radioactivity of that in all legacy wastes. It is understood that new build operators may not pay towards any benefits package associated with the GDF (this cost will presumably be borne solely by the NDA/taxpayer). This is not reasonable, particularly in light of the additional problems new build disposal would bring - e.g. a much longer operational period for the GDF itself.

The proposal that new build operators pay only for marginal, incremental costs additional to the whole GDF programme is not equitable. They should be made to pay the full amount, properly costed e.g. proper allocation for the all resources needed for construction, operation and any ongoing care and monitoring. In addition, they should make a contribution towards the estimated £1bn already spend on developing a GDF design. It is understood this is not included in new build waste estimates.

Question 5 Do you agree or disagree with the proposal that the units to be used for the Fixed Unit Price are pence per kWh for spent fuel and cubic metres of packaged volume for intermediate level waste? What are your reasons?

Answer:

The consultation does not make it clear how operators will make up any shortfall in waste funds, and within what time frame, if there is any decrease in electricity prices. Presumably such matters will be dealt with under the annual or five year reviews of the Funded Decommissioning Programmes. The consultation document does not make this clear. Unfortunately, due to the closed door nature of future deliberations on these matters (between industry, officials and with only 'advice' from the Nuclear Liabilities Financing Assurance Board) public and Parliament will have to take these matters on trust. Given the current all-time low in public confidence in how Government takes care of financial monitoring and budgeting in almost every sector, it is hardly surprising that critical questions are being asked - and will continue to be asked - of the proposed arrangements.

Question 6 Do the updated cost estimates represent a credible range of estimates of the likely costs for decommissioning, waste management and waste disposal for a new nuclear power station?

Answer:

There are too many unknowns for the Government, industry, public or Parliament to sign off on this issue now. Major issues such as possible reprocessing of spent fuel from new build have been left open for possible future discussion. The implications of such a possible change to spent fuel management, which would have massive financial and environmental impacts, should be part of discussions now before any further steps are taken to allow new build.

i http://www.decc.gov.uk/en/content/cms/consultations/nuc_waste_cost/nuc_waste_cost.aspx
Paras 5.3.20 - 5.3.21

ii http://www.nao.org.uk/publications/0506/restructuring_of_british_energy.aspx Page 52

iii http://www.decc.gov.uk/en/content/cms/consultations/nuc_waste_cost/nuc_waste_cost.aspx
Para 5.1.4

iv http://www.decc.gov.uk/en/content/cms/consultations/nuc_waste_cost/nuc_waste_cost.aspx Para 1.10