

Further advice please

Prime Minister

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PRIME MINISTER

Also from

Agree, subject to colleagues' views, the recommendations in para 17?

FAST REACTOR POLICY

Discussion

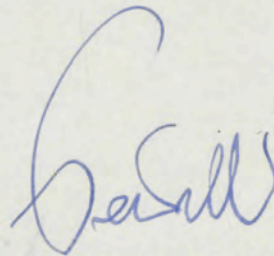
not see MS to Energy 2. 12

Or would you like advice - from Robin Nicholson?

It was agreed last autumn at a meeting under your Chairmanship that certain changes were necessary in our fast reactor policy. The Chairman of the Atomic Energy Authority was accordingly invited to consult with his colleagues in the nuclear industry and advise on a reduced programme costing around £70m per annum, along with the scope and benefits of international co-operation. This he has now done, and his principal recommendations, which I endorse, are in favour of collaboration with Europe - principally France and Germany, but also Italy, Belgium and Holland. An analysis of his proposals, along with my conclusions and recommendations, is set out in the attached paper, which I commend to you. MS 8/7

Consideration of this subject has been delayed by the Election campaign. Our prospective partners have been appreciative of the problem, but it is important that the policy decisions should now be taken fairly quickly, so that we can press ahead with the negotiations of the inter-governmental understanding which will be required. I hope that the views on the way ahead set out in my paper will command general acceptance.

I am copying this minute and its attachments to the Foreign and Commonwealth Secretary, the Chancellor of the Exchequer, the Secretary of State for Scotland and Sir Robert Armstrong.



Secretary of State for Energy

8 July 1983



FAST REACTOR POLICY

Note by the Secretary of State for Energy.

It was agreed last autumn that while our objective must still be to have access to fast reactor technology when we needed it, the timescale now looked less pressing, and we could afford to reduce the scale of the programme while minimising the impact on Dounreay. The programme should go ahead at a level of around £70m per annum. The Parliamentary statement which Nigel Lawson made after these decisions is at Annex A. I have now received from the Atomic Energy Authority the advice on a development programme and on international collaboration referred to in that statement.

Summary of Nuclear Industry Proposals

2. For planning purposes the industry - Atomic Energy Authority, Generating Boards, British Nuclear Fuels Limited and the mainly private sector National Nuclear Corporation - assumes that the UK should be able, if we wished, to begin construction of a commercial reactor in ten years time; but this is the earliest prospect, and the timescale could be modified in the light of events.

3. The programme would be based on international co-operation in order to reduce costs and minimise risks by sharing experience and avoiding duplication of R & D; and to bring forward the date for commercial viability by developing reactor and fuel plant designs with a maximum of common features through a co-ordinated construction programme. These objectives could best be served by co-operation with Europe (principally France and Germany but also Italy, Belgium and Holland) where we would be equal partners in a fully collaborative programme.



4. Within a collaborative framework the UK programme would concentrate on bringing the prototype fast reactor (PFR) at Dounreay back to full power and demonstrating system reliability; developing improved fuel and fuel cycle plant and designing and proving new components.

5. AEA funding would fall to £70m per annum at September 1981 money values, but with additional Generating Board contributions of £5-£10m per annum. BNFL and NNC are also willing to provide services worth £1½-£2m per annum. Thus the total programme would be around £80m per annum, with the additional funding reflecting the industry's wish to produce a viable programme for international collaboration.

6. Co-operation with Europe would not require a cash entry fee. However, it is proposed to offer a variety of services which would have a small marginal cost to the UK within the £70/80m, but a substantial value to the Europeans. These are described in Annex B. This offer would recognise the advanced state of construction of Super Phenix and make it easier for the French to justify UK access to its technology.

7. The industry recommends that we should conclude a Government-to-Government agreement on fast reactor collaboration with France and Germany while Sir Peter signs a Memorandum of Understanding (MOU) with the Heads of the Commissariat a l'Energie Atomique (CEA) and Interatom in Germany.

8. Meanwhile, the CEEB would continue parallel discussions with EdF leading to a similar MOU at the utility level. It would cover the possibility of cross-investment as part of fast reactor collaboration but would not in itself involve any financial commitment. A specific proposal, at present foreseen as a 16% CEEB investment

in Super Phenix 2, costing around £180m at 1 January 1982 prices, would come to my Department for approval in due course. Electricity corresponding to the CEGB share of the investment, some 240 MW, would be supplied via the cross channel cable from around 1994/95, assuming the earliest starting date of 1986/87. The CEGB believe that, because of lower nuclear construction costs in France, the cost of electricity would be comparable to that for the Sizewell B PWR, and would therefore meet the 5% required rate of return for nationalised industry investment.

Analysis

International Collaboration

9. The prospect of:-

- the integrated planning and construction of three lead reactors (France, UK and Germany);
- unrestricted access at relatively small cost to a programme twice the size of our own, and to the technology of the world's first commercial scale fast reactor (Super Phenix 1), which cost over £1000m;
- the burden of construction of the next large fast reactor falling predominantly on French rather than UK taxpayers with a UK lead reactor postponed well into the 1990s or beyond without a loss of momentum or reliance upon licensing,

is very attractive by comparison with the UK trying to go it alone.

10. I accept the industry's advice that the US and Japan cannot at present offer us an equally attractive prospect. Although large in money terms, the US programme is not well co-ordinated and its political and industrial backing is uncertain. As was apparent during recent discussions with the US Secretary of Energy, the



Administration is not of one mind on this issue and is not in a position to deliver Congress. It does not appear that we could be guaranteed full access to US fast reactor technology, and the prospect of satisfactory fuel cycle co-operation seems even more limited. The Japanese programme is too far behind for them to be serious partners at present.

11. I therefore favour co-operation with the Europeans, while leaving the door open for collaboration with the US and Japan. The French and Germans will, I believe, accept appropriate wording in the Government-to-Government agreement. On this basis, and with careful presentation, a UK decision to co-operate with the Europeans should not have any adverse impact on our wider relationships.

12. The prospects for co-operation contrast with the situation in 1979, when the French appeared to regard the UK as a junior partner, and demanded a substantial entry fee. The present Administration is clearly being driven towards cost-sharing options. If they went further and cancelled Super Phenix 2 the character of our co-operation might need re-examination, though the objectives would remain valid. It is more likely, given the large sums and prestige already sunk in fast reactor development, that they would put back Super Phenix 2 by 2/3 years. This would be positively to our advantage; it would give more time to integrate British designs into the project. The proposed parallel agreement between the CEGB and EdF could contribute to the French cost-sharing objective while remaining attractive economically to the CEGB.

13. We have to recognise that any collaborative venture, especially one with a nuclear weapons state, can lead to criticism that we are directly or indirectly assisting the creation in the partner country of material of potential military application. The French do not make the clear cut divisions we make between civil and military use. A provision in the agreement that all



parties see its purpose as purely peaceful will help. There are also a number of specific features (loan of plutonium, reprocessing of European fuel, irradiation facilities at PFR and investment in Super Phenix 2) which I would wish to see covered by appropriate peaceful use assurances or safeguard commitments from the French Government. But some problem of public presentation could remain.

UK Programme

14. The industry's proposals safeguard Dounreay and minimise redundancies. Staff cuts at Dounreay would be 140 out of 2320. For the whole AEA manpower on the fast reactor would be reduced 20%, or 800 out of a total AEA strength of 14,000.

Funding

15. The AEA programme yields PES savings of £6m, £19m and £25m over the next 3 years, and reduces the spend by 1986/87 to only half that proposed as recently as last autumn. It depends on securing electricity receipts of £15m a year from Dounreay. This will require an effort but the AEA believe it can be achieved.

16. The Treasury have discussed with my Department the possibility of securing further reductions by treating the industrial contributions as in aid of the Exchequer rather than in aid of the programme. The whole programme would be restricted to £70m a year and the Exchequer contribution would fall to about £60m instead of £70m. This would obviously remove all incentive to seek, or make, industrial contributions. But in addition it would mean further cuts in the R & D part of the programme, with a possibility of compulsory redundancies at Dounreay, since the industrial contributions are earmarked for design and component proving work.



I am however prepared - though with some reluctance because of the incentive effects - to accept the Chief Secretary's compromise proposal for a "settled down" programme of £75m per annum, inclusive of £5m from industry partners; with any additional contributions from whatever source going half to the programme and half to the Exchequer.

Conclusions

17. I recommend we proceed as follows:-

- (i) agree a fast reactor programme at a settled down level of £75m per annum, subject to the arrangements about non-vote contributions described at the end of paragraph 16 above.
- (ii) negotiate a government-to-government understanding with the French, Germans and, as necessary, other European partners. This agreement should however not constrain us legally, diplomatically or morally to build a fast reactor before we think it is needed; or to commit a higher level of resources to this area than we think right.
- (iii) permit signature of a Memorandum of Understanding between the AEA and its French and German counterparts, and of a General Agreement between the CEGB and EdF on the lines explained earlier in this paper.

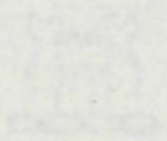
Secretary of State for Energy
July 1983

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P 8



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bc: Nick Owen

10 DOWNING STREET

From the Private Secretary

29 July 1983

Dear Julian,

Fast Reactor Policy

The Prime Minister has now studied your Secretary of State's minute of 8 July and the paper attached thereto, together with subsequent ministerial correspondence on this subject.

The Prime Minister agrees to your Secretary of State's proposals, as set out in paragraph 17 of the paper.

I am sending copies of this letter to Brian Fall (Foreign and Commonwealth Office), Margaret O'Mara (HM Treasury), Muir Russell (Scottish Office), John Gieve (Chief Secretary's Office), Robin Nicholson (CPRS) and Richard Hatfield (Cabinet Office).

Yours sincerely,

Michael Scholar

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Julian West Esq
Department of Energy.

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10 DOWNING STREET

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Prime Minister

Fast Reactor Policy

Before making up your mind (flag A)
you wanted advice from the Treasury
and Dr Nicholson (flag B).

Minutes, too, from the Foreign
Secretary (flag C) and George Younger
(flag D).

Agree the recommendations in
para 17?

MLS 26/7

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20 July 1983

PRIME MINISTER

FAST REACTOR POLICY

I have seen a copy of the Secretary of State for Energy's minute to you of 8 July. with MCS?

2. When fast reactor policy was discussed with you earlier, I pointed out that in my view the best way forward for the UK was through international collaboration in the R & D programme and I also indicated that the state of the technology, even on an international basis, made it far from certain that a design for an economically viable fast reactor had yet been conceived.

3. I think the Secretary of State's proposals meet both these points. Undoubtedly the best deal at the moment is with the Europeans but we are not locked in to the French technology and we will be able to use the ideas of others in the world, not least of course the UKAEA's.

4. The Fast Breeder reactor "project" set up as a result of the Versailles Working Group may well prove to be a useful forum for us to monitor world-wide developments in fast reactor technology. Certainly the Americans and Japanese will see it as their principal way of maintaining a link with the strengthened European group.

5. I am sending copies of this minute to the Foreign and Commonwealth Secretary, the Chancellor, the Secretaries of State for Energy and Scotland and Sir Robert Armstrong.

RBN

ROBIN B NICHOLSON
Chief Scientist

Cabinet Office

20 July 1983



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SCOTTISH OFFICE
WHITEHALL, LONDON SW1A 2AU

3 PPs

J D West Esq
Private Secretary to the
Secretary of State for Energy
Thames House South
Millbank
LONDON SW1

19 July 1983

Ben Tubman

FAST REACTOR POLICY

My Secretary of State has seen a copy of the minute of 8 July from the Secretary of State for Energy to the Prime Minister and the attached paper. Mr Younger is in complete agreement with Mr Walker's recommendation and agrees that we should proceed accordingly. He has asked to be given plenty of warning of any public statement on the subject.

I am copying this letter to the Private Secretaries to the Prime Minister, the Foreign and Commonwealth Secretary, the Chancellor of the Exchequer and Sir Robert Armstrong.

A Muir Russell

A MUIR RUSSELL
Private Secretary

Energy
Policy, Pt 8

20 JUL 1985





PM/83/50

PRIME MINISTERFast Reactor Policy

1. I believe that the proposals contained in the Note by the Secretary of State for Energy, which he sent to you under cover of his minute of 8 July, deserve our support. Collaboration with France and Germany on the terms proposed will give us full access to the biggest and most advanced programme of research and development in the world on this subject at reasonable cost. We shall certainly get more value for our money than we could by continuing our own programme in isolation and neither the United States nor Japan are currently able to offer programmes as advanced, or in the US case as financially secure, as the Franco/German programme. However, we should certainly not close the door to inclusion of either country in the collaboration at an appropriate time in the future.

2. Paragraph 13 of the Note raises an important point about the possibility of criticism from some quarters of involvement by our civil nuclear industry in the French nuclear programme, where the civil/military division is less clear cut than in the UK. However, I understand that officials have raised the problem with their French counterparts and are confident that suitable assurances can be obtained to cover the problems listed. Subject to satisfactory solution of this problem, I suggest we press ahead with negotiations of an understanding with the French and Germans based on a "settled down" UK programme on a funding level of £75 million a year.

3. I am

CONFIDENTIAL



3. I am copying this minute to the Secretary of State for Energy, the Chancellor of the Exchequer, the Secretary of State for Scotland and Sir Robert Armstrong.

A handwritten signature in dark ink, appearing to be 'G. Howe', written in a cursive style.

(GEOFFREY HOWE)

Foreign and Commonwealth Office
18 July 1983

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PRIME MINISTER

FAST REACTOR POLICY

I have seen Peter Walker's minute to you of 8 July, recommending the way ahead on the fast reactor.

2. I accept that there are considerable attractions in co-operation with European partners in this field. It is important however, that we should not allow the process of collaboration to drive the programme faster and further than we would otherwise wish. Experience with Concorde illustrates this point. I therefore welcome Peter Walker's intention that we should not allow the Government-to-Government understandings to constrain our freedom of choice in future.

3. The Treasury would also want to examine any proposals for CEGB investment in a French fast reactor against the normal criteria for Nationalised Industry investment. While we do not object to a 'general agreement' between the electricity authorities, the French should not be led in any way to believe that the Government is committed to agree to such an investment. Indeed, it would be prudent for all the agreements with collaborative partners to contain clear provision for withdrawal if necessary (the lack of these have caused problems in the past on other collaborative projects).

4. I can confirm that I am content with the financial arrangements set out in Peter Walker's note, subject to the 'settled down' level of expenditure being reached by 1986-87 at the latest.

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5. I am copying this minute to the Foreign and Commonwealth Secretary, the Chancellor, the Secretaries of State for Energy and Scotland and Sir Robert Armstrong.

PR

PETER REES
18 July 1983

CONFIDENTIAL

ENERGY Policy Pt 8.

14 JUL 1983

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COMMISSIONER