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E(80)124 31 October 1980

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CABINET

MINISTERIAL COMMITTEE ON ECONOMIC STRATEGY

COMPUTERISATION OF PAYE

Memorandum by the Lord President of the Council

The revised approach set out by the Chancellor of the Exchequer (E(80)123) cuts out the biggest risks in the earlier version. Large computer projects almost always slip, and experience tells us that it would be prudent to assume that this one will take a year longer than the Chancellor plans. That will delay the staff savings which are also rather smaller than before. But colleagues will, I think, agree that it is still worth going ahead. We now have to settle the question of procurement.

2. We have revised the project to bring it within the competence of ICL. The presumption is that we want them to get the contract. This raises two problems.

#### Present Procurement Policy

- 3. Our present policy requires that large computer systems should be acquired by single tender from ICL, subject to satisfactory performance, delivery and price.
- 4. Performance. A technical assessment by the CCTA is at Annex A. ICL's proposal looks broadly all right. But the computer is new and we shall not be sure until a demonstration at the end of 1981 whether it is up to the job. If not, it can be enhanced, but this will cost more.
- 5. Delivery. Using ICL equipment may mean about six months extra delay (in addition to the year in paragraph 1). This is because ICL have less experience of such systems and much of the hardware and software they are proposing is less well tried.

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- 6. Price. A comparison by CCTA of the budgetary estimate provided by ICL and similar estimates from four other companies is at Annex B. There are dangers in such comparisons, but CCTA have had discussions with all the manufacturers to minimise inconsistencies. It looks as if, in comparison with IBM, for example, going to ICL would initially cost about 25% (£8.4m) more; over the life of the equipment, taking running costs into account, the difference would be 23% (£15.2m). In comparison with Burroughs, ICL's total cost over the life of the equipment would be 31% (£19.6m) more. These comparisons are based on manufacturers' normal prices. They do not allow for any discounts or for any "loss-leader" prices which might be offered in competition. So they compare like with like to the extent that we can.
- 7. We can regard the performance and delivery criteria as met, provided that next year's demonstration is successful, even though it would be less risky to go to ICL's competitors. But ICL's price is too high for us to call it satisfactory under the present procurement policy. So, if we want the contract to go to ICL, we must admit this, and defend the higher price on industrial policy grounds.
- 8. The procurement of computers will be subject to new EC and GATT rules from the beginning of next year. The Attorney General has given his opinion on the effect this would have on our ability to place the contract with ICL by single tender. It is at Annex C; briefly, he says that we shall face grave risks of being frustrated by litigation if we do not complete the contract before the end of this year.
- 9. This will mean a very hurried negotiation. Colleagues should be aware of the considerable dangers of this. They are set out in Annex D. Briefly, we shall be trying to complete in two months a very complex process which would normally take up to a year. To complete a contract in so short a time will put us to some extent at the mercy of ICL. This will mean taking risks with taxpayers' money which will certainly be brought to light by the Public Accounts Committee. But I am clear that we have no alternative if we want the contract to go to ICL.
- 10. We shall have to say something in public. At this stage we should say no more than that we have decided to investigate whether suitable terms can be negotiated with ICL, since any firmer public commitment would destroy our negotiating position with the company. We should delay any further announcement until we are ready to sign the contract.

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#### Conclusion

- 11. On the assumption that the project is to go ahead in its revised form, I invite my colleagues to decide whether we should go by single tender to ICL despite
  - (a) the higher costs set out in paragraph 6, and
  - (b) the considerable risks in a hasty contract negotiation described in paragraph 9 and Annex D;

and if so to agree to make a public announcement on the lines proposed in paragraph  $10. \,$ 

Civil Service Department

31 October 1980

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ANNEX A

TECHNICAL ASSESSMENT OF ICL DRAFT OUTLINE PROPOSAL TO SATISFY REVISED (OCTOBER 1980) INLAND REVENUE (PAYE) REQUIREMENT (Note by CCTA)

- 1 Phase I of the revised Requirement which is all that is being sought at the present time does not call for communication between computers; it also reduces somewhat the total power requirements and proposes a more gradual implementation of the total system. Phase II describes the previous fully automatic system to which it should be possible to move from Phase I at a later date, should it be so decided.
- 2 There are two main questions:
  - a Will the ICL outline proposal satisfy Phase I of the revised Requirement in respect of performance, availability, operation and timescale; and can it be built upon to meet the Phase II requirement in due course?
  - b When, and with what prospect of success, can the company demonstrate the feasibility of their proposal?
- 3 ASSESSMENT OF THE COMPANY'S OUTLINE PROPOSAL
- 3.1 Performance

The company have prepared an outline design which we consider provides the basis of a satisfactory solution to Phase I, capable of being enhanced to meet the Phase II requirement. The computer upon which it is based has not yet completed its development and its performance is not fully measured; should it not achieve its target, more equipment will be needed. The theoretical calculations carried out by the company to estimate the amount of equipment required for the on-line activity have been fairly exhaustive while those for the batch work, while less comprehensive, are adequate to have exposed any potential problem areas; but the accuracy of both calculations does depend upon confirmation of the basic performance assumptions made. These cannot be confirmed fully until satisfactory completion of demonstrations. The company have declined to provide us with facilities to make our own measurements which would have given us greater evidence of performance, but the limited performance measurements made available bear out the figures in the calculations with something to spare. Should there be a shortfall, the design is capable of enhancement without technical problems (by the addition of extra computers and peripherals) but there would be increased costs, both for the extra hardware (which could be as much as £5m) and possibly accommodation and operation.

#### 3.2 RELIABILITY

ICL have stated that they are prepared to contract to the reliability/serviceability requirements called for in the Inland Revenue Requirement; this is consistent with the reliability to be expected of the equipment proposed. It will not, however, be possible to confirm this fully until about 1983/4 when there has been sufficient exposure of the proposed computers and associated equipment in operational use; but some indications of the reliability of the computers will become available earlier from their use for other work.

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ANNEX B

## 3.3 TIMESCALE

The revised proposal still requires the use of much equipment and software which has not yet had wide operational use; but the elimination of the need for communication between computers has meant that much of the complexity in an area particularly novel to ICL has been removed. The total system now proposed is essentially a number of separate individual computers each supporting independently a number (around 500) of terminals with the result that the company's growing experience (and the use of its products) in other current projects is more relevant than was previously the case. The relative inexperience of ICL and the use of less well tried products (both hardware and software) compared with those available from other manufacturers suggest a somewhat greater risk of delay in implementation, but this should not be more than 6 months.

#### 4 DEMONSTRATION

4.1

The demonstration is required to serve two purposes:

- a to confirm that the configuration proposed is in principle capable of performing the task described in the Operational Requirement (Phase I);
- b to confirm the calculations made in the proposal to show that the configuration is powerful enough to do the job, or to indicate the size of any shortfall.
- 4.2 ICL have proposed a demonstration in mid-May 1981, using a configuration incorporating magnetic storage media which are not the same as those proposed for the operational system, because the appropriate equipment will not be available. This will demonstrate the functional capability of the equipment and we are reasonably confident ICL will achieve this in the timescale. It will not however be sufficient to confirm whether the configuration is powerful enough to do the PAYE job (although it will show if it is grossly deficient).
- 4.3 ICL have informed us that some of the missing equipment could be available for a demonstration in early July 1981, but a fully representative demonstration could not be mounted until October 1981; this full demonstration is likely to slip towards the end of the year. Therefore confirmation that the configuration proposed is powerful enough will not be available much before the end of 1981.

BUDGETARY COMPARISON OF MANUFACTURERS PROPOSALS FOR INLAND REVENUE PAYE REVISED OPERATIONAL REQUIREMENT

(Note by CCTA)

- 1 ICL's proposals have been compared with similar proposals from four multinational companies (IBM, Burroughs, Univac and Honeywell), but only ICL have had access to the detailed requirement. All companies adopted a similar approach, but the other manufacturers proposed far less computer power. This was possibly because they had less detail of the requirement; so, in order to ensure that the comparison was fair we have increased their power to the equivalent of that proposed by ICL, and adjusted their costs accordingly. Where there has been any doubt, the comparisons have been weighted to ICL's advantage.
- We have also taken into account the annual operating costs ie software licences and maintenance (based on two shift operation). To arrive at a budgetary comparison these annual costs have been aggregated using a discount rate of 7% over a ten year operational life of the full system. We have excluded other costs which will be incurred during the implementation of a project of this magnitude, such as company support, installation and commissioning, motor generators etc. We have no precise information on these items and their magnitude would only emerge after detailed study of the requirement by the companies concerned. However, from past experience ICL's support costs are likely to be significantly higher than those of other companies because their equipment and software are less well tried and likely to present greater problems. ICL, but not the other companies, will make significant additional costs for installation and commissioning.

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- 3 The table overleaf summarises the budgetary totals for each manufacturer's proposals, both as originally provided and as adjusted by CCTA. All manufacturers' figures are based upon their published list prices (with the exception of ICL, who have given us the figures they expect to publish shortly). It is to be expected that during any contractual negotiations companies would agree to the application of a discount upon their list price. ICL have, on the basis of their expected price, indicated that they would offer a 20% discount reducing their present budgetary estimate for capital items of £42.0m to £33.6m, but the discounted figure has not been used in this assessment in order to maintain a common basis for comparison.
- From these figures it can be seen that the costs of initial purchase from IBM, for example, would be £33.6m, compared with £42.0m from ICL. Taking into account annual maintenance and software licence fees, the total cost over a 10 year life would be £66.6m from IBM compared with £81.8m from ICL, a difference of £15.2m (23%). If we were to use Burroughs whose total life costs come to £62.6m for comparison, the difference would be £19.2m (31%). To these differences should be added greater installation and commissioning and company support costs which would be incurred with ICL.

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Revised 'Weighted' Proposals	Total	EM	81.8*	62.2	71.5	9.99	67.1
	Software costs over 10 years (Discounted at 7%)	EM	19.1	1.5	14.3	18.8	12.8
	Hardware Maintenance (2-ahift) over 10 years (Discounted	EM	20.7	20•3	18.8	14.2	15.8
	Total Initial Purchase	EM	45.0*	40.4	38.4	33.6	38.5
Original Proposal		EM	81.8*	30.0	39.8	48.0	52.3
	Software costs over 10 years (Discounted at 7%)	ЖЭ	19.1	7.5	13.5	18.0	12.8
	Hardware Maintenance (2-shift) over 10 years (Discounted at 7%)	K.A.	20.7	11,3	8.3	0.6	11.3
	Initial Purchase	EM	45.0*	17.2	18.0	21.0	28.2
	Supplier		ICL	Burroughs	Honeywell	IBM	Univac

have indicated that they would offer a 20% discount to the initial purchase, which would ce it to £33.6m; that would reduce the total sum of £81.8m to £73.4m. Discounts of at st similar size would be expected during contractual negotiations with other companies

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ANNEX C

01 7641 Ext.

Communications on this subject should be addressed to THE LEGAL SECRETARY ATTORNEY GENERAL'S CHAMBERS ATTORNEY GENERAL'S CHAMBERS,

LAW OFFICERS' DEPARTMENT,

ROYAL COURTS OF JUSTICE,

Our Ref: 400/80/290

LONDON, W.C.2.

Miss J Wheldon Treasury Solicitors Dept Matthew Parker Street SWI

28 October 1980

EEC SUPPLIES DIRECTIVE: PAYE COMPUTER CONTRACT

I am writing to record the advice the Attorney General gave in consultation yesterday on the four questions you raised in your letter of 14 October on this subject.

The first question which you raised was whether anything short of the award of the PAYE contract before 1 January 1981 would relieve the Government from the obligation to advertise the contract in accordance with the Supplies Directive; and whether the draft Heads of Agreement provide a sufficient contractual commitment for that purpose, whilst at the same time safeguarding the Government's position if it decided not to proceed with the contract with ICL?

The Attorney General is of the opinion that, if the Supplies Directive is not to apply to the contract, there will have to be some form of binding contract for the supply of the equipment with ICL concluded before I January 1981; the draft Heads of Agreement which you enclosed with your letter would not be sufficient. I will be writing to you in the near future with the Attorney's views on the second draft which he had not had time to consider yesterday, and on the sort of terms which should be included in any agreement with ICL. In any event the Attorney would wish to see the Agreement before it is finally signed.

The second question you raised was in the event of proceedings being brought either by a computer company in the UK courts or by the Commission in the European Court, alleging the unlawfulness of the Government's action in negotiation with ICL alone and not advertising the PAYE contract, whether it would be improper for the Government to award the contract until the proceedings had terminated?

The Attorney General is of the opinion that it would be most improper for the Government, in the event of such proceedings, to award any contract for the supply of the equipment before the Court gave a final decision. The award of a contract in such circumstances would be an abuse of the Crown's immunity from injunction. It would also be unwise as the result of such proceedings might be that the Government would have to follow the Supplies Directives procedures in relation to the contract after having concluded an invalid

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/agreement

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01- 641 Ext.

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LAW OFFICERS' DEPARTMENT,

ROYAL COURTS OF JUSTICE,

LONDON, W.C.2.

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agreement with ICL after protracted negotiations.

The third question you raised was whether the risk of the UK being compelled to implement the Supplies Directive by legislation would be substantially increased if the UK's failure to apply the Supplies Directive procedures to the PAYE contract were challenged before the European Court either as a result of a preliminary reference under Article 177 or infraction proceedings under Article 169?

The Attorney General is of the opinion that risk of being compelled to implement the Supplies Directive by legislation would be substantially increased as a result of a challenge in the European Court about this contract. The Attorney is not in a position to assess the risk of the commission bringing infraction proceedings in relation to this contract but he takes the view that if the contract were awarded in breach of the Directive this would increase the risk of the commission bringing infraction proceedings because of our failure to implement the Directive by legislation.

The fourth question on which you sought advice was on the extent of the risk that if the UK's failure to advertise the PAYE contract was referred to the European Court under Article 177 the court would hold that the Supplies Directive had direct effect, so enabling a computer company to rely on its provisions in an action for a declaration against the Government.

The Attorney General is of the opinion that there is a substantial risk that the European Court would hold that the Directive had direct effect so as to enable a computer company to rely on its provisions in an action for a declaration against the Government. The Attorney takes the view that the European Court would lean over backwards to reach such a decision in view of our failure to implement the Directive by legislation.

P Coopman (Mrs)

ANNEX D

RISKS INVOLVED IN ATTEMPTING TO COMPLETE A CONTRACT BEFORE THE END OF 1980

The Inland Revenue and CCTA have worked closely with ICL during the revision of the Operational Requirement. The full text was given to the Company at the earliest possible moment on October 17. The Company now have to work out their full response to it. This involves a close study of the OR to determine precisely what equipment and software it requires and the terms on which ICL are prepared to provide them. For a project of this size the Company would normally expect to take 3-4 months; because of our close collaboration with them since August they will be able to respond by mid-December. What we have so far is no more than a brief general sketch of their proposed system; there is a vast amount of detail to fill in.

- The CCTA on its side has to work through all this material (200 pages or more of close technical detail) and satisfy itself that every aspect of the requirement is fully covered by a proposal which will work satisfactorily. Since it will be impossible both to do this and to negotiate the contract in the last two weeks of December, most of the negotiations will have to be undertaken while the Company are still drafting their response, based on such information as they can make available during this time. This is clearly a fruitful source of potential error and confusion. Moreover, such important issues as the precise content and criteria of the demonstration, the detailed list of equipment and software and the pricing arrangements together with provisions to limit Government liability in the event of failures on the part of ICL can only be settled at the last minute.
- The time it will take to work through these issues will depend upon the speed and acceptability of the Company's responses as well as on the efforts of CCTA and the Inland Revenue. What will be at risk in hasty negotiation is essentially the extra costs that would arise from inadequate safeguards against shortcomings in ICL's equipment and software and failure to meet target dates. It is not possible to foresee exactly what might go wrong. But, for example, if an extra computer were subsequently needed in each regional centre, this would add about £20m or 25% to the cost over the lifetime of the equipment. A year's delay would cost about £46m in deferred staff savings. Negotiating against a deadline greatly increases the danger of failing to settle terms which, though they would not cover costs of this order, would provide the maximum incentive to ICL to meet our requirements.
- We have given firm undertakings to the Public Accounts Committee that we will build into contracts the best safeguards we can devise. They will certainly examine this project with close attention and probably at an early stage. It will not then be possible to conceal any shortcomings in the contract or the circumstances in which they were incurred.