

1911

EAST AFR. PROT.

10496

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January

Date:

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Which:

recons Paper.

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Installation of bi-rate telegraph  
& telephone lines

No objection in principle but wishes to see scheme  
worked out to show how such a plan would  
operate in practice. Enclosed report need from 1910  
on proposal. Submit above generally. Scheme  
must satisfy the one essential requirement that of  
safeguarding the line from any loss.

W. Butler

2 ack: Gov't. 309.2 201

Sent Gov a copy of the report  
(in the encl. in the envelope

original), for comment & request

him to submit a detailed scheme  
with due regard to the suggestions  
made by the Treasury

ack

6/4

W. Reid

spas

April 14

at me

12. Y.R.

4/14

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11 10 22 W

Subsequent Paper

In the reply to this letter the following  
number should be quoted.

*HC*

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10496

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TREASURY CHAMBERS

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*31st* March 1911.

Sir,

The Lords Commissioners of His Majesty's Treasury have had before them Mr. Fiddes's letter of the 29th December last (36242/1910) and the accompanying copy of a despatch from the Governor of the East Africa Protectorate on the subject of the installation of private telegraph and telephone lines.

In reply, I am directed to state that, if the Protectorate funds are insufficient to allow the provision of the lines at Government expense, My Lords will offer no objection in principle to the adoption of a scheme under which the necessary capital will be found by the private customer.

Before, however, giving a general sanction to Sir Percy Girouard's proposal to provide such capital by requiring the customer to pay a sufficient number of years' rent in advance on the plan which is believed to have been in operation in Australia, My Lords would wish to see details worked out to show how such a plan would operate in practice.

Having no experience of such a system, My Lords thought it right to refer Mr. Fiddes's letter and enclosures to the Postmaster General in case his Department could offer any

The Under Secretary of State,  
Colonial Office.

any suggestions as to the main principles on which the finance of such a scheme should be elaborated. The memoranda, however, by the expert officers of the Post Office with which the Postmaster General has been good enough to furnish Their Lordships unfortunately, show that there are likely to be so many differences between conditions in East Africa and those of which the Post Office have experience that it will probably be difficult to get much guidance from the practice in this country.

Copies of the memoranda are however enclosed in case they should be of any assistance to the Secretary of State and the authorities of the Protectorate.

The prima facie considerations which occur to My Lords are as follows:-

They assume that leases would be arranged on the basis of the lines becoming the property of the Administration at the end of the agreed term, in accordance with the principle that Government should own and maintain all such lines, and there would be nothing unfair in this, inasmuch as the capital cost would be provided out of moneys due to the Government for rental under the lease, though paid in advance of the times when such rental would normally become due.

In working out the details of a scheme, My Lords think that the following points should be borne in mind and allowed for. The number of years' rent which would be required to be advanced at the outset would primarily be determined with reference to the amount required to construct the line. If the advance payment just covered this,

then

then, during the period before rent again began to be paid, the Government would be incurring out of pocket expenditure on administration, working expenses, and renewals of plant for which at the moment it would be receiving no return. Therefore a constant rent fixed for the period of the lease would have to be fixed at such a rate as would not only cover the said charges for the remainder of the period while the rent was being paid annually, but also recoup to the Government the similar outlay for the earlier period. My Lords do not doubt that it would be possible to calculate a rental which would satisfy this requirement, but it would require care; and of course the amount to be allowed for administration, working expenses, maintenance and renewals of plant would require elaborate calculations which should be based so far as possible on actual experience of the life of plant and of the cost of working, maintenance, etc. of such lines under the conditions prevailing in East Africa.

It would no doubt be well for safety's sake to include a slight margin of profit; but My Lords will be ready to give Their best consideration to a scheme worked out in detail, with concrete figures, in the light of the above remarks and of the Post Office memoranda, provided that it is shown to satisfy the one essential requirement, that of safeguarding the Protectorate (and therefore the Exchequer) from any loss.

I am,

Sir,

Your obedient Servant,



Report of the Engineer in Chief of the General Post Office, London, on the financial proposals of the East Africa Protectorate. 195

It may, it is thought, be laid down as sound procedure in connection with rented telegraph and telephone lines that the Lessor should recover during the period of rental:-

1. Interest on the Capital outlay.
2. The sum representing the depreciation suffered by the plant, i.e. the difference between the first cost of the plant and its value as a realisable asset when abandoned by the renter.
3. The costs of maintenance incurred.

In the special case of a line in the East Africa Protectorate of which the prospective renter pays the first cost 1., "Interest on the Capital outlay" is, of course, entirely eliminated so far as the undertaker is concerned.

As regards 2 the annual amount chargeable depends upon

- (a) the length of the lease for which the renter is prepared to sign an agreement; and
- (b) whether the line, if given up by the renter before the expiration of the life of the plant, is likely to have a value to the lessor in excess of the value of the materials on recovery; or, in other words, whether the line in situ is so situated that it is likely, entirely or in part, to be rented a second time or to be of use for the purposes of the Lessor.

In the case under consideration, it is perhaps fair to assume that the renter, having borne the first cost of the line, would be unlikely to abandon it and thus sacrifice his interest therein until the expiration of the life

life of the plant. This being the case depreciation may be spread uniformly over the full life of the plant. In view of the fact that, in paying the depreciation charges, the renter will be, not repaying capital expended by the lessor, but rather providing a fund for the renewal of plant, it is considered that the sum included, for depreciation, in the rental should be calculated on the sinking fund basis. This method of calculation has the effect of reducing the annual charge by crediting the renter with the accretions of interest on the sums repaid. Some doubt is felt, however, whether the lower annual rental comprising only full maintenance and depreciation charges (even though the latter be calculated as suggested on a Sinking fund basis) would represent an arrangement which the renter would consider to sufficiently compensate him for his initial outlay. Moreover the equity of imposing full depreciation charges might perhaps be contested as such an arrangement, applied to such a circuit, apparently assumes that the circuit will be rented in perpetuity.

In these circumstances it is suggested that the annual payment required of the renter should be only the cost of maintenance with an addition for profit but that the agreement should provide for the renter to bear the cost of all renewals as they become necessary, or, alternatively, that an annual payment for depreciation be imposed on the understanding that in the event of the line being given up any balance in respect of payments made under this head over the costs incurred for renewals will be refunded to the renter. Whether this proposal be adopted or not the

authorities

authorities in the East Africa Protectorate will require to obtain indispensable information as to the cost of maintaining the Telegraph and Telephone plant under their control, and it is thought that the method adopted by the British Post Office of obtaining similar information will prove of theoretical if not practical interest. A copy of the Unit Maintenance Cost instructions and a set of the forms in use in this Department have therefore been prepared for transmission to the Governor of the Protectorate - the following notes explanatory of the system will facilitate its consideration.

Speaking generally the Unit Maintenance Cost System provides for the allocation of all costs for labour, materials, travelling etc., incurred in the course of Maintenance, to the various classes of plant the upkeep of which necessitates the expenditure. For the sake of simplicity the record of labour is kept in hours, summarised at the end of each quarter and converted into money at the average hourly rate of pay of the men employed on Maintenance work.

Quantities of stores used are recorded at the time of use in the diaries kept by the Maintenance staff and valued in bulk for each item of plant by the cost Clerk at the end of the quarter.

The diary also gives particulars which enable the fares and allowances incurred in connection with each work to be ascertained. Recently, however, it has been the practice to treat the total travelling costs incurred during a quarter as an uniform percentage on the labour.

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The total expenditure incurred in connection with each class of plant is divided by the number of "Units" i.e. by the number of miles in the case of wire and of "sets" in the case of instruments.

Switchboards need special treatment in the definition of units on account of the variation in the size of the boards. The costs incurred in connection with a switchboard to which Exchange subscribers lines and Junction circuits (i.e. circuits to other exchanges) are connected, are recorded separately for the subscribers' and junction portion of the equipment and divided by the number of working subscribers' and working junction circuits respectively.

In addition to furnishing exact figures for use in rental calculations the Unit Maintenance Cost system has two other principal uses.

1. It provides the comparative check on costs now universally recognised as the best means of securing economy and efficiency, and
2. It furnishes data which indicate the amount of plant which the average man should be able to maintain.

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Report from the Accountant General's Department of the  
General Post Office, London, on the proposals of the  
East Africa Protectorate.

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The unusual, but essential part of the suggestion is, that the user of the line shall provide the Capital required for its construction and that it is desired to facilitate the extension of the Telephone system. The problem is on what conditions can the renter be encouraged to proceed without actual loss ensuing to the Administration.

I agree with Major O'Meara that if the user also provided funds for maintenance, renewal and depreciation he would not be likely to consider the arrangement equitable seeing that at the end of the agreed term the line would become the property of the Administration. It is understood that the wires in question are to be an extension to the existing system but the cost of operating at the Exchange might perhaps in all the circumstances be left out of the calculation as the Administration would derive some advantage from calls in the opposite direction.

Both parties would have an interest in the line being efficiently maintained and it seems therefore that a division of the cost of maintenance and renewal might be hit upon which would not frighten the renter and not be unfair to the Administration. Roughly the cost of maintenance and Renewal in our system is 5% of the Capital invested. The conditions in the East African Protectorate are no doubt different and it might be necessary to reckon a higher percentage. A fair solution would perhaps be for the Administration to repay a sum of money in the form of

Maintenance

Maintenance and Renewal until the amount, with compound interest at 5% reached 75% of the Capital advanced by the user. The other 25% could be considered as a set-off against depreciation and indirect charges.

Assuming 8% for Renewal and Maintenance purposes and dividing the cost equally between the two parties the actual out of pocket expenses of the Administration for a (say) 15 years' lease would be £60 for every £100 of Capital provided by the user who would also have found his £60 for Maintenance and renewal. The wires should then become the property of the Administration.

At the end of the period of lease the line could be renewed where necessary with the accrued funds and there would be no need in the special circumstances to also provide a fund for depreciation.

It is not possible to suggest exact rentals and terms of agreement where the conditions are unknown, but admitting the desirability of modification in the proportion of maintenance to be paid by either party, the length of period for which it may be desirable to grant a lease and the amount to be estimated for Maintenance and renewal it is thought that the scheme outlined might suggest a possible way of meeting a difficulty.

\* \* \* \* \*

DRAFT.

Lab No 185

For his P. G. amount

~~Handwritten scribble~~

B. April: 1924

1000 5/14  
for Butler

to receipt of your disp.

No. 6324 of the 29th of October,  
relating to  
~~the subject of the installation~~  
of private telegraph &  
telephone lines in the  
Lab., amounting to  
you, for your convenience, the  
accompanying copy of  
copy with the Treasury  
on this matter. subject.

was. 29 Dec  
30942

on was. 31 March

& the work in the  
development of the  
in original

2. Name to request

about

that you will  
submit a detailed  
scheme, paying having  
due regard to the  
suggestions made  
in the Manning  
letter of the 31<sup>st</sup> of  
March, to show  
how your proposals  
would operate in  
practice

