

PUBLIC RECORD OFFICE

C0533/458

ORDER NO. ⇨ FN/E475
CAMERA NO. ⇨ 19
OPERATOR. ⇨ EM
REDUCTION. ⇨ 12
EMULSION NO. ⇨ 341081
DATE. ⇨ 3/7/72

CROWN COPYRIGHT

THESE COPIES ARE SUPPLIED FOR INFO
AND RESEARCH ONLY-NO REPRODUCTION
MADE FOR PUBLICATION WITHOUT THE A
THE PUBLIC RECORD OFFICE

PUBLIC RECORD OFFICE

C0533/458

ORDER NO. ⇨ FN/E475

CAMERA NO. ⇨ 19

OPERATOR. ⇨ EM

REDUCTION. ⇨ 12

EMULSION NO. ⇨ 341081

DATE. ⇨ 3/7/72

CROWN COPYRIGHT

THESE COPIES ARE SUPPLIED FOR INFORMATION
AND RESEARCH ONLY-NO REPRODUCTION MAY BE
MADE FOR PUBLICATION WITHOUT THE ASSENT OF
THE PUBLIC RECORD OFFICE

1935.

Kenya.

No. 38082

SUBJECT CO 533/458

East African Power & Lighting Co. Ltd.

Marageta-Tana - Ken Forkes Hydro Electric Scheme

Previous

23108/34.

Subsequent

1936.

C.I.
Electric
power
development.

1. Crown Agents 21st March, 1935

Trans. a copy of the consulting engineers' report on the Seven Forks and Maragua-Tana Electric Power development schemes.

2. Crown Agents (Min.) 27th March, 1935

Returns encls. to No. 61 on 23108/34.

DESTROYED UNDER STATUTE

In the opinion of the experts who visited Kenya and the Consulting Engineers, the Maragua-Tana scheme is without doubt the proper and most economical method of meeting the growing demands for electricity in Nairobi and the surrounding districts

The estimated capital expenditure for the Maragua-Tana and the Seven Forks scheme is:-

<u>Maragua-Tana</u>	<u>Seven Forks</u>
£299,860	£419,100

plus

the cost of settling those native cultivators who are occupying the 1,500 acres to be flooded.

As regards the area to be flooded in connection with the Maragua-Tana scheme it will be seen from No. 8 on 23108/34 that, if the Kenya Government would exclude the area from the Kikuyu ^{Reserv.} ~~Province~~ the E.A.P. and L. Company would be prepared to hand over an area of larger extent and of better value, actually contiguous to the native reserve. The Company invite reference to Section 1541(11)(a) of the Land Commission Report, and submit that the supply of abundant and cheap electrical energy can be described as for a public purpose and in the public interests.

It is for the Kenya Government, however, to consider the report generally, and if the

recommendation

recommendations are accepted, to state by which of the three methods described in paragraph 1536 of the Land Commission Report, the plot should be acquired for public purposes.

In the first instance ? send a copy of the report to the E.A.P. and L. Company Limited, saying that a copy of the report is being sent to the Governor, Kenya, and that any observations which the Company may have to offer will be communicated to the Governor. Send a copy of the report to the Governor for conson. and enclose a copy of the letter sent to the E.A.P. and L. Company.

are telephoned
CA. for an
initial copy
of the Report
A.S.

C.A. Grommit

30.3.35.

J We might also tell C.A. what we are doing, and ask them to thank the C.E. for the informative report.

(Sec) C.D.F. to see (pp. later)

B. Bruck

1/4/35.

This is the result of the investigation by experts which was carried out at the expense of the C.D.F. The condition of the grant of assistance up to £1,000 from the C.D.F. was that if, as a result of the investigation, the Seven Forks site was found suitable and was afterwards developed by the East African Power and Lighting Company, then the cost of the investigation

investigation should fall upon the Company. The Company have agreed to this on the understanding that there is a time limit of five years on it, i.e. if they do not take up a concession at Seven Forks within five years their obligation to contribute the cost is discharged.

Now we get this report from which it appears quite definitely and conclusively that the Seven Forks site is no good. It is not impossible as an engineering scheme, and indeed it may be said, without much risk of contradiction, that nothing is impossible from an engineering point, given enough time, men, and money, but its cost would be so great as to outweigh any possible advantages and the interest on the capital required would form a heavy burden on the Company's activities and inevitably result in increased prices of current. I would call special attention to the general statement in para. 6 of the Consulting Engineers' report, where they point out that the difficulty with regard to many hydro-electric schemes is that the civil engineering work requires to be calculated to suit the ultimate development of the scheme, although the mechanical and electrical equipment can be put in piecemeal as required. I lay stress on this here because it is the point which I have had in mind in regard to possible electric development at the Ripon Falls, where there is no doubt that electric power can be developed and can be developed piecemeal but such piecemeal development will spoil the whole thing, and the works necessary for full development of the Ripon Falls would be on a very large scale indeed, such as is certainly not warranted by any demand for power with ^{existing} interests at present in the town of Jinja and its neighbourhood.

The

The maximum demand for power at present in Nairobi and district (the only area with which we are concerned) is 800 Kilowatts at present, probably rising to 4,000 by 1940 and about 8,000 by 1947. In passing I may say that I do not fancy there will be any such large increase in Kenya. Development can only go on up to a certain point. The country can only carry a certain number of sisal factories and if they start producing too much sisal, the result will inevitably be restriction of crop and falling off in the demand for power. Also I do not expect Nairobi to grow ^{very rapidly now} like ~~any kind of~~ rabbit post and on the whole I should not be surprised to find that the demand for electric power remains pretty well stationary or with only a very small rate of increase for several years to come.

The Tana River scheme at the Seven Forks has already been investigated by Mr. Stanley for the East African Power and Lighting Company and ^{results are} ~~is consequently~~ generally accepted by the special engineers. That indeed is what we ^{have} ~~are~~ told would be likely to happen by the Company's representatives, who ^{are} quite definitely of the opinion that all the work that need be done had been done with regard to the Seven Forks scheme. The definite conclusion of the joint Consulting Engineers is that the scheme put up by the Company for the putting up of a reservoir on the Maragwa-Tana Confluence is without doubt the proper and most economical method of meeting the growing demand for electricity in Nairobi and its neighbourhood. The cost of this would be about £190,000 on engineering works alone ^{plus}

4
plus the cost of resettling the native cultivators whose land would be drowned. The engineers envisage the possibility of building a lower dam (about 40 ft. lower) which would avoid drowning any cultivatable land. The drawback to this, however, is that the aqueduct from the dam would have to be built out along the sides of the gorge in which the river runs, and would be very costly and difficult and would also reduce the power available by about 50 per cent.

Para. 18 raised the question of the possible results of a dam in the way of spreading malaria in the surrounding districts. The Consulting Engineers suggest that if the contract is secured the licencees should be compelled to maintain such anti-malarial measures as are considered necessary. I may ~~still~~, however, record my own opinion which is that the menace of malaria is very much a bogey trotted out to impress people in this country, who would fall for the argument that the Kenya Government has authorised the construction of a reservoir which will destroy the health of the native population for miles around through the spread of malaria. In point of fact, I very much doubt whether a reservoir on the lines suggested would be likely to cause much mosquito breeding, and even if it did, it is certainly for consideration whether the risk, whatever it is, ought not to be faced.

We are now driven back on the original difficulty, which is that the Maragwa-Tana scheme can only be properly developed by the construction of a dam involving the drowning out of some 1,500 acres which the native population do not want

to give up. The Company, in their letter of the 6th of July last, stated that they were prepared to hand over an area of larger extent and of better value and they acquired a suitable estate for their purpose. This, however, is open to some doubt as regards its facts. Canon Leaky informed the S. of S. that the compensation in land which would have been offered to the natives was useless and would be no good at all as compensation. He also said that the larger scheme would be quite impracticable if due regard is paid to native interests and that no matter how ready the Company was to provide extra land, there was, in fact, no such land available (see No. 41 on 16166/1930). It may be that the Company have got some ^{further} ~~free~~ land which they can make available, but I for one am very much inclined to doubt it. This will inevitably bring up the question whether the development of the water power can be considered to be a public purpose or not. I have previously taken the view that if we had a clean slate and if there were no question of natives' rights in a serious form, it would be quite proper to regard this as a public purpose, even though the development of the power was not to be undertaken directly by Government, but by a private dividend-paying Company. I still think this is right, but we have not got the necessary clean slate, and from the political point of view I very much doubt whether allowing the Company to extend its works and draw out 1,500 acres can be defended unless indeed it can be shown conclusively that an addition had been made to the reserve which more than counter-balanced in every way the

the amount taken away. As to this, Government alone can say.

I am rather doubtful as to the wisdom of communicating the report to the Company immediately. They will promptly fasten upon it and rush in with applications for permission to extend their power station. They have a right to know what is in it, because they are definitely ~~the~~ interested parties, since they have a contingent liability for paying something, but I think it would be as well first of all to communicate ^{the} report to the Government of Kenya and tell them to hand it on to the Company's representatives. Whatever happens, there is going to be trouble.

*They have now asked when it is coming so we must send it by Air Mail
J. 10-4.*

*J. S. G. Hand
4-4*

The C. D. A. C. should have a copy, also de Treasury.

There are still doubts as to the facts relating to the alternative land available. It is for the Govt. of Kenya to decide as regards that matter-- and as regards the major implications in this case, primarily at least.

I would send ~~xxxx~~ a copy of the report to the S. of Kenya, first, as Mr. Flood proposes.

My own view is that the Karaga-Tana scheme will eventually have to be accepted. The "public purpose" seems evident enough; and it is somewhat difficult to believe that satisfactory arrangements cannot be made to provide an area of so small an extent as 1000 acres, in a suitable locality.

The 6th: April, 1930.

*So so mine
J. 10-4.*

*It is: but it's Kenya
when any thing is
possible or impossible
J.*

*P.L.
18/4.*

Go forward

*5/4/30
J. S. G.*

10/4/35

By air mail
23/4/35

To Kenya, 281 (w/c) cons 23 APR 1935

DESTROYED UNDER STATUTE
ffo 66 SAC
29. 39 a 23102/24

H. O.A.G. Tel 80 _____ 9 Apr 35

The flood has been noted
has note of 10/4 by H.H.

DESTROYED UNDER STATUTE
Enquiries whether final report of consulting engineers
may be expected in the near future.

Dh.

B. Austin
22/4/35

5 To Gov. Tel N° 106 - H. Aust. - 24.4.35

Reciev. v. draft
ffo 6 - CDAC
side draft 3

DESTROYED UNDER STATUTE

(copy sent)
? how L.F. 6 T.O. - CDAC
29. 39 a 23102/24

a. 2. 20.4.35

It will be convenient if extra copies
of the end. may be made - we
shall probably want them later on.

B. Austin
26/4/35

6 To Treasury - }
7 C.D. A.I. } (etc (trans.) 18/6 30/4/35

JM

8 O.A.G. Tel 95 Conf _____ 3rd May 35

Enquiries whether original scheme is likely to be withheld on
political grounds & seeks authority to intimate to the Company that
the Govt. is prepared to consider its offer, in the light of circumstances
as they at present exist.

Mr. Wade is cautious, and quite
rightly. Nothing will be compromised
by giving the Company the intimation
which he suggests; it would indeed
be difficult to withhold it.

? No in draft.

B. Austin
3/5

This is what is to be expected. A new factor
has now arisen in that the alternatives to the
Maragua scheme have been definitely pronounced
unsuitable and very much more expensive in any case.
The local people are of opinion that the scheme is in
the general interests of the public of Kenya and it
is almost impossible to oppose that conclusion, which
is only common sense. A situation where a few
native cultivators can hold up a fairly large hydro-
electric power scheme which will be for the good of
everybody in the place is one which cannot be allowed
to continue. We now have the Acting Governor's
opinion that the political objections are not as
strong now as they were previously and if the
condition of giving land of equivalent area and
agricultural value is stuck to, there should be no
difficulty

difficulty on any ground. Of course, the trouble will be that people will allege that land given in exchange ~~was~~ ^{is} not of the same value. This was urged by Canon Leakey in 1930, and no doubt somebody else will urge it in 1935. I think that when we are considering the thing we shall have to insist that land given in compensation shall be the full economic equivalent of the land drowned out by the reservoir. That might mean, of course, that a considerably larger area of land will have to be added if no land of equivalent fertility can be found in the neighbourhood. That however, remains to be seen and it may well be that the difficulty may not arise.

What Mr. Wade asks for is authority to tell the company that they can renew their application which the Government will be prepared to consider again in the light of present circumstances. There can be no objection to this and when the application is put forward, it will be for Government to satisfy itself that native interests are properly safe-guarded and that the scheme can be recommended.

J. E. W. Wade
9.5.

I agree. And I doubt if the Company will again demand the cost of any compensation required.

19/7/35
W.C.S. 9.5.35
M. 9.5.35

rel. to Gov. No. 127 edif. 18.5.35
(revised)

10. Crown Agents _____ 1st August 35

Trans. copy of letter from General Manager K.V.R. stating that a new agreement has been entered into for the supply of power to Nairobi Workshops.

This links up with the cover enclosed in No 62 on 23/08/34. L. G. Rhodes has made a satisfactory arrangement with the E.A.P. Co. (1) so the scheme of ~~the~~ Railway Workshops generating their own electric supply will not be necessary.

? Put by C.R. with 28/31

W.D. 3/8 at own

11. Crown Agents _____ 31st August 35

Trans. copy of memo. with Govts. of Kenya & Uganda regarding the hydro electric investigations. Trust that refs. made to prospective payments from C.D. F. are made & state that Consulting Engineers charges are being paid from Disposal Account. (Copy Original on 40022/35 Uganda).

see on 40022/35.

1. lthy. J. Malone 10/10 at own

DM

(Refers to (1) states that the comy. is about to make further application to Kenya Govt. for the acquisition of power. Requests intention to discuss a proposed revision of clause 19 of the Kenya Elec. Ordinance (the ^{draft} memo.) ~~revisions~~)

Briefly the grievance is this. The distributing licences held by the Company are subject to the disadvantage that ~~a~~ Local Authority ^(i.e. Municipalities) can at any time, except within six months before the expiry date of the licence, make an application to the Governor to revoke ~~the Company's licence~~ ^{a licence held by the Company} and ask to have a licence issued to itself. Amending legislation designed to give the company security of tenure for a fixed period of years was introduced in July 1934. Objections were raised by Municipalities, ~~however~~, on the grounds that the amendments proposed restricted their existing rights. The Municipalities were not averse to the new conditions being applied to future licences. In the committee stage ^{of the Bill} a proviso was introduced which said, in effect, that distributing licences already granted should continue to be subject to the terms of the old legislation. ^(NB. This applies to all the licences held by the Company.)

The E.A.P. & L. Company claim to have sunk £750,000 in electrical undertakings in the Colony and are contemplating sinking a further £300,000 in the Maragua-Tana scheme. They submit that they are entitled to the same protection as is given to licensees in other countries

countries. They suggest further that the objections made by the Municipalities were of a formal nature and that they expected to be over-ruled. Nairobi Council did not in fact object.

I have put up copies of the Legislative Council's debates on the amending legislation, and of the Bill and the Ordinance as passed. I am not sure that any useful purpose would be served by discussing the matter with the Company in the absence of local information as to the present attitude of the Municipalities, ~~but~~? we might write to the Company and say that a copy of their letter is being sent to the Governor for his observations and that ^{on} [pending] receipt of his reply [it is thought that an interview would serve no useful purpose.]

A. Duncan
17.10.35

Duncan
Dr. Roberts

'Any down

Robertson
18/10

I agree that we should proceed on the lines indicated by Mr. Prossmith, except that for the words in brackets I should substitute the following: "we will communicate with them again".

Yours:
11.10.35

21/10/35 *A. Duncan*

This is a typical East African performance. The

Mr. Fitzgerald said in Council that the Chairman appeared before the select committee!

interview here from the enclosure it appears that when the 1934 Bill came up last year the Chairman & General Manager went off to London and the Co. now contend that because an amendment was introduced the Government ought to have held up the Bill till it pleased the two to return.

There is no doubt whatever about the facts and merits. By an accident in his drafting the law provided or seemed to provide that a municipality could apply to revoke a licence at any time provided it was not later than 4 1/2 years from the grant. The words used are "at least six months preceding the expiration of a period of 4 1/2 years which means any time up to 4 1/2 years. This has been amended to "within six months after the expiration of a period of 4 1/2 years" which is obviously what is intended. From examination of the debates it appears that the municipalities of Nakuru Eldoret & Mombasa objected to the amendment and the two former said they attached considerable importance to maintaining the status quo and that any interference would be a breach of faith because they had relied upon existing conditions in deciding not to oppose the grant of distributing licenses.

In other words they argued that they relied on the power to move to take over at any time to keep the Company in order, even though they must have realized that the law was a mistake. I can only describe such an attitude as opportunist & I wonder that Mr. Fitzgerald was taken in, or that Lord F. Scott didn't see that it was an error in drafting (He said some period of security was necessary but that Nakuru thought 42 years too long).

In the Consolidated Laws there was a misprint which rendered the section to gibberish so that if it hadn't been amended the powers given under it were nil. But the section was put right in 1930 so that it stood as shown in the Gazette (marked "Bill") of 10 July 1934.

Unfortunately the Governor in Council has apparently no power to refuse a licence to a municipality because § 19 (b) says that if the area to be covered is wholly within the jurisdiction of the local authority the Governor

what was really meant I suppose 4 1/2 in the last 4 months of the 4 1/2 year.

3rd Reading p 482-83.

2nd Reading p. 248

P.

Governor in Council shall think fit. If the area is partly in & partly out of the jurisdiction the ~~Board~~ application may be granted on conditions. Here apparently the Governor can refuse, but if a municipality was careful to keep to its own area the Governor has no power to refuse. He might put on impossible conditions but it is, I think, implicit that conditions must be reasonable, so there is no way out.

The intention is clear and in any place but Kenya the municipalities would not object to amendment. But in Kenya they may make a Govt. vs. Settler thing out of it - for although the Company is a private one of Kenya yet it is not too popular - even though they discourage capital. What they are after is of course to blackmail the Co. for cheap power or something.

? Action as proposed

J. E. O. Flood 22-10-35.

Mr. Duncan

would you say my law is right at P. & Q. please?

Mr. Flood.

I was astonished when I first read this case, and it is interesting to see that it evidently strikes you in the same way.

I agree with what you say at P & Q.

25/10/35 H. Duncan.

Sir C. Bottomley

Then we can only proceed as proposed. The Company are dead right and the law - owing to an admitted mistake - was absurd. But they are being held to it by the whites of Nakuru & Eldoret - and Mombasa.

J. E. O. Flood

I agree to action, but I should like to see the app. despatch. It must be something more than

26-10-35

than a transmitter; it should
point out (though the fact shows
it) that the C.O. have a strong
case & should ask for his views
as to the ~~long~~ ^{case} ~~in detail~~ they
can be met.

W.C.S. 28/10/35
C.A.S.

13 To East African Power Lighting Co. 11/11/35
(12 amend.)
DESTROY'D UNDER STATUTE

14 To Kenya, Conf (w/c 12) 6 NOV 1935

NY

R. 309

No definite reply yet (B)
& any need to remind
W.C.S. 25/11

No. C.A.S. 26/11/35

15 Extract from Kenya Gazette No. 53 dated 5-11-35
DESTROYED UNDER STATUTE

Attached in acc. with mins. on 38040/35.

This interest is viewed
No 12.

? Put by
C.A.S. 16.12.35

Livran

Please let me have a set of the
Ordinances amending the Electric Power Ordinance
since the consolidated edition. (There is no § 18 (4) in
the principal Ord.)

15.4.7. 16.12.

Mr. Wood,

The sub-section in question
was added by ordinance 57/34.

R. Pitt
Library
16/12/35.

Yes: they have got permission to apply now
for extension up to 1972 & we going to do it

Put by ✓
Jeddon
16-12 since

NY

~~Extract from Kenya Gazette No. 55 dated 11-11-35~~

C. O.

Mr. Grossmith 28/10/35.

Mr. Freeston 28

Mr. Flood. 30/10

Sir C. Parkinson.

Sir G. Tomlinson

X Sir C. Bottomley. 31.10.35 f

Sir J. Shuckburgh

Permt. U.S. of S.

Partly. U.S. of S.

Secretary of State.

BY 14
Ann. 1/36 file

C.D.
R 31 OCT 35
D X W

DOWNING STREET.

~~October, 1935.~~
6 NOV 1935

S.H.
64/10/35
6 on 38082/1/35
64/10/35

DRAFT.

K E N Y A.

CONFIDENTIAL.

GOVERNOR.

11th October, 1935. (No.12)

Sir,

I have etc. to enclose for your consen. a copy of a letter from the East African Power and Lighting Company, Ltd., in which it is submitted that the proviso to Section 3(1) of the Electric Power (Amendment) Ordinance, 1934, has the effect of continuing an anomaly which arose through an error in the drafting of Section 19(a) of the Principal Ordinance, in so far as distributing licences already granted to the Company are concerned.

2. The anomaly is described in the Postmaster-General's speech on

FURTHER ACTION.

page 296 of the Debates of the Legislative Council of the 25th of July, 1934. In my opinion, there is considerable force in the Company's representations, and I agree with the view that without reasonable security of tenure, which cannot be obtained under the law as it stands, the operations of the Company may easily be hampered and their prospects of raising additional capital for necessary works gravely affected with consequent damage to the true interests of Kenya. From Lord Francis Scott's speech as reported in the debate to which I have already referred it appears that the anomaly was abundantly clear to him, though he stated that in the opinion of the Nakuru Municipality forty-two years was too long a period. In the Committee stage the proviso was added in the circumstances explained by the Postmaster General, but I am still of opinion that ~~the~~ inclusion is not calculated to help electrical development in the Colony.

3. I shall accordingly be glad to receive your views as to how the Company's wishes can be met.

I have etc.,

C. O.

Mr.

Mr.

Mr.

Mr. Parkinson.

Mr. Tomlinson.

Sir C. Bottomley.

Sir J. Shuckburgh.

Perms. U.S. of S.

Parly. U.S. of S.

Secretary of State.

DRAFT.

3. It is true that under section 19(f)(c) ^{rewording} the grant of a license to a ¹² ~~municipality~~ local authority is subject to such terms and conditions as the Governor may think fit, but this power to impose conditions could not be used in an unreasonable manner, and, the wording of section 19(f) being mandatory, it would be impossible to prevent a local authority from ^{exercising} ~~exercising~~ its rights ~~if~~ ^{of applying for the} under the preceding section if that section were applicable. The wording of section 19(c) is discretionary & thus the Governor might refuse, but he has no such power of refusal where the local authority confines its application to its own area.

4. In all the circ^s. I think that you will share my view that there is cogent force in the Company's contention and that steps should be taken to meet their wishes, if possible. The deletion of the proviso to Section 19(a) would apparently be sufficient for this purpose and it may be that, if the case is again represented to the municipalities which asked for its inclusion their objections will be withdrawn. ~~My reply~~

(Sgd.) MALCOLM MacDONALD

The Under Secretary of State,
Colonial Office.

14
11th October, 1935.

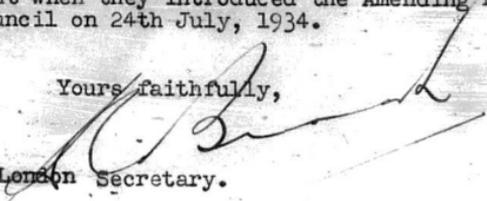
2.

the licence period, instead of "within the six months after the expiration of" the licence period, thus depriving the authorised distributor of any security of tenure.

By a misunderstanding and upon the representation of three of the smaller municipalities (Nairobi, the principal municipality, not included) a proviso was added which nullified the revision so far as all existing licences are concerned. In respect of these, the anomaly still exists; and, in the interests of all concerned, we are desirous that the obvious error should be remedied.

I have the honour to request an interview to discuss with you the simple proposed revision of Section 19, intended by the Kenya Government when they introduced the Amending Bill to the Legislative Council on 24th July, 1934.

Yours faithfully,



London Secretary.

Encl. (Memorandum).
HCL/EP.

THE EAST AFRICAN POWER AND LIGHTING CO. LIMITED

MEMORANDUM

on Paragraph (a) of section 19 of the Electric Power Ordinance of Kenya Colony as amended by sub-section 1 of section 3 of the Electric Power (Amendment) Ordinance, 1934.

The Electric Power Ordinance, 1919 (being Ordinance Number 15 of 1920) was assented to by the then Governor of Kenya on behalf of His Most Gracious Majesty on the 30th March 1920 and was thereafter duly published in the Official Gazette for the year 1920 at pages 323 to 416 inclusive. Section 19 of the Electric Power Ordinance 1919 down to the end of paragraph (a) read as follows:-

"19. Where any Authorized Distributor is authorized by a Distributing Licence to supply electrical energy within any area, and any local authority within whose jurisdiction for other purposes such area or any part thereof is situated desires to undertake the supply of electrical energy in such area or any part thereof, the following provisions shall apply:-

"(a) At least six months preceding the expiration of a period of twenty-five years from the date of the Distributing Licence, or such shorter period as is specified in that behalf in the

16.
"Distributing Licence, or at least six months
"preceding the expiration of every subsequent
"period of five years, or such shorter period
"as is specified in that behalf in the Distribu-
"ting Licence; such local authority shall make
"application to the Governor-in-Council for the
"revocation of the existing Distributing Licence
"as to the whole or part of the area of supply,
"and for the issue to them of a Distributing
"Licence for such area or part thereof. In
"addition to any notices required to be given
"by this Ordinance, the applicant shall serve
"copies of such applications upon the Authorized
"Distributor, together with such further
"particulars as the Governor-in-Council may
"direct."

Pages 323 to 329 and a portion of page 330 of the Official Gazette for 1920 purport to give the contents of each of the 152 sections of the Ordinance and the purport of section 19 is stated on page 324 of that Gazette to be as follows:

"19. Local authority may acquire works after 25 years
"and after every subsequent period of 5 years;
"local authority to make application for Licence;"
"etc."

By section 4 of the Electric Power (Amendment) Ordinance, 1921, (being Ordinance No.27 of 1921) it was provided that section 19 subsection (a) of the Electric Power Ordinance, 1919, should be amended by the substitution of 42 years for 25 years and of 7 years for 5 years. A further amending Ordinance (No.22 of 1923) not material for the purposes of this letter was passed in 1923.

7

The Laws of Kenya containing the Ordinances in force on the 1st January 1924 were published in 1926 and in such Laws the Electric Power Ordinance 1919 as amended by the two amending Ordinances of 1921 and 1923 above mentioned is referred to as "The Electric Power Ordinance" and is the subject of Cap.165 of those Laws. Pages 2083 to 2189 of the Laws of Kenya are devoted to a general Index of the Laws and at page 2131 it is stated in that index that the purport of section 19 of The Electric Power Ordinance is that "Local Authority may acquire works after 25 years and ~~after~~ every subsequent period of 5 years" etc.

The Laws of Kenya were prepared by the then Chief Justice and Attorney General of Kenya with the assistance of one of the Colony's Crown Counsel and although the references to 25 years and 5 years in that Index should be to 42 years and 7 years respectively that error we submit does not in any way negative from the fact that the three foremost official lawyers of the Colony in 1926 were of opinion that the statement published in 1920 as to the contents or meaning of section 19(a) was correct and that a Local Authority desiring to undertake the supply of electrical energy within its area could not apply to Government to revoke the licence of an Authorised Distributor until after the expiration of the period of years named in that section or after the expiration of such shorter period as might be specified in that behalf in the Authorised Distributor's licence: This mistake in the interpretation of the meaning of the section was facilitated by the references to six months 25 years and 5 years (now 42 years and 7 years) as the section means exactly the same thing if those references are deleted and paragraph (a) of section 19 made to read as though it were "Such local authority shall make application to the Governor-in-Council for the revocation" etc.

A comparison of section 19 (a) of the Electric Power Ordinance 18 with section 27 of the English Electric Lighting Act 1882 as amended by section 2 of the Electric Lighting Act 1888 will show that the draftsman of the 1919 Ordinance intended that Ordinance to mean that a local authority could make application to Government to revoke an Authorised Distributor's Licence after 25 years and after each subsequent period of 5 years but that he failed to give effect to such intention.

The fact that a mistake had been made in the drafting of section 19 (a) of the Electric Power Ordinance, 1919, was first noticed in 1930 by the then Attorney General of Kenya who admitted that it was evident that a mistake had been made by the draftsman in consequence of which the provisions of that section were absolutely opposed to the whole trend of modern legislation in connection with the supply of electricity and deprived an Authorised Distributor of such reasonable period of security as experience had shown was necessary to offer an inducement to the investment of capital in electric supply undertakings.

For some time, however, the subject appeared to be purely an academic one seeing that no local authority in Kenya was likely for a considerable time to be sufficiently strong financially to be able to obtain the approval of Government of an application to acquire that portion of this Company's undertaking serving its area, but, about a year ago, that state of affairs was changed for two reasons, namely:-

- (1) the experience of an Authorised Distributor in another country to which publicity was given in England in September 1933 brought home to the Directors of this Company the fact that if the flaw above mentioned in section 19 (a) of the Ordinance became generally known and if use were made of the position by those with ulterior motives it would have a serious effect on the standing of this

19

Company in the city and upon its power to raise capital cheaply for the carrying out of its obligations in Kenya; and

- (a) The Directors of the Company became convinced that there was grave risk of such defect being used to bring pressure to bear on this Company in other directions. (That the Directors did not exaggerate that risk is proved by the fact that we have ascertained from the members of one Local Authority that their sole object in opposing the amendment of section 19 (a) introduced in July 1934 was because the error in drafting this section gave them a considerable handle with which to bring pressure to bear on this Company to reduce rates).

Accordingly in October 1933 this Company's case was laid before the then Acting Postmaster General (the competent authority under the Electric Power Ordinance) and the then Attorney General for their consideration and both these officers accepted the fairness of the Company's case and undertook to advise Government that appropriate amending legislation should be introduced and this Company was given definitely to understand that if Government accepted such advice the amending legislation would be introduced as a Government measure as had been the practice in the past. In due course the draft of the proposed amending legislation was submitted to this Company and other interested parties for their comments and thereafter published as a Bill in the Gazette.

THE AMENDING LEGISLATION WAS INTRODUCED BY GOVERNMENT INTO LEGISLATIVE COUNCIL ON THE 24TH JULY 1934 BUT AT NO TIME PRIOR TO SUCH INTRODUCTION WAS THIS COMPANY EVER ADVISED BY GOVERNMENT THAT ANY OBJECTIONS HAD BEEN RECEIVED TO THE PROPOSED AMENDING LEGISLATION. FURTHER, RELYING ON THE

ASSURANCE THAT THE AMENDING LEGISLATION WAS BEING PUT FORWARD AS A GOVERNMENT MEASURE THERE APPEARED TO BE NO REASON WHY ITS CHAIRMAN AND GENERAL MANAGER SHOULD DELAY THEIR DEPARTURE TO LONDON WHERE THE BUSINESS OF THE COMPANY RENDERED THEIR PRESENCE NECESSARY. It was only after the proposed amending legislation had been debated in Legislative Council (by which time the Chairman and General Manager of the Company were in London) that this Company became aware that objections had been raised to the proposed amending legislation with the result that it was then impossible for the Company in the time at its disposal to consult its London Managers or by reason of the absence of its Chairman and General Manager to prepare and/or submit a proper case to the Select Committee of Legislative Council.

Section 3 (1) of the Electric Power (Amendment) Ordinance 1934 reads as follows:-

"3. (1) Paragraph (a) of Section 19 of the Principal Ordinance is, subject to the proviso contained in this sub-section, hereby repealed and the following is substituted therefor:-

(a) Within six months after the expiration of a period of forty-two years from the date of the distributing licence, or such shorter period as is specified in that behalf in the distributing licence, or within six months after the expiration of every subsequent period of seven years, or such other period as is specified in that behalf in the Distributing Licence, such local authority shall make an application to the Governor in Council for the revocation of the existing distributing licence as to the whole or part of the area of

supply, and for the issue to them of a distributing licence for such area or part thereof. In addition to any notices required to be given by this Ordinance, the applicant shall serve copies of such applications upon the authorised distributor, together with such further particulars as the Governor in Council may direct."

"Provided that the provisions of this sub-section shall not apply to any distributing licence granted before the commencement of this Ordinance but the provisions of paragraph (a) of section 19 of the Principal Ordinance, as the same appeared in that Ordinance before the coming into operation of this Ordinance, shall continue to apply to any such distributing licence."

As every distributing licence held by this Company was in existence prior to the 27th day of August 1934, being the date on which the Governor assented to the Electric Power (Amendment) Ordinance 1934 on behalf of His Majesty, it follows that the 1934 amending legislation in no way improved the position of this Company. In fact, such amending legislation intensified the unfairness of this Company's position as a reference to paragraph (e) of Section 17 of the Amending Ordinance will show, and which reads as follows:-

"17. Section 125 of the Principal Ordinance is

" hereby amended as follows:-

" (a) - - -

" (b) - - -

" (c) - - -

" (d) - - -

" (e) By the addition of the following proviso to sub-section (6) of the section:-

" 'Provided that the provisions of section

" '19 of this Ordinance shall be deemed to

" 'continue to apply to any licence so

" 'renewed or extended under this section

" 'unless the Governor in Council shall
" 'otherwise direct' "

22

Paragraph (e) of Section 17 of the Amending Ordinance was inserted in the Bill on the assumption that Section 19 (a) of the Electric Power Ordinance would be amended in accordance with the Bill the intention being that if Section 19 (a) was amended as originally contemplated that fact should not of itself in the case of a distributing licence originally granted for a term of less than 42 years (the distributing licence held by this Company for the Nairobi area was granted for 25 years) prevent a local authority from having an opportunity to supply electrical energy for the area under its jurisdiction at the expiration of such less term of years or if the licence was then renewed at the expiration of every subsequent period of 7 years from the date from which such renewal took effect. The combined effect of the amendments made by Section 3 (1) and Section 17 (e) of the Electric Power (Amendment) Ordinance 1934 is that a local authority can apply for the revocation at any time of any of the distributing licences held by this Company and that the position of this Company will be in no way improved if it obtains an extension or renewal of any of its distributing licences as by virtue of Section 17 (e) of the 1934 Amending Ordinance the right of the appropriate local authority to apply at any time for the revocation of any of the Company's distributing licences is maintained.

This Company has sunk upwards of three quarters of a million pounds sterling in connection with its undertakings in this Colony and contemplates sinking considerable further capital in the future, and we would submit, therefore, is fully entitled to the same protection as is given to licencees in other countries.

#3

This Company wishes to submit with all the emphasis possible that just as soon as Government found that it was unable to support the amending legislation as a Government measure in view of the objections raised by the local authorities such amending legislation should have been temporarily withdrawn in order to give this Company an adequate opportunity for making further representations and particularly for examining as to how far it could overcome the objections raised.

The attitude of the local authorities (with the exception of the one already referred to) as we understand it from close conversation is that they only registered their protest as a formal matter because they realised that the rights which the proposed amending legislation would take away from them had only been theirs because of an error in the drafting of Section 19 (a) of the Ordinance and while they quite expected to have their protest overruled by Government (as they understood the amending legislation to be a Government measure) yet they also expected to have an opportunity of discussing matters with this Company. For the reasons already stated no such opportunity was afforded either to the local authorities or this Company. It should be noted that the Nairobi Municipality being the local authority in respect of the largest area and most closely affected by the proposed amendments DECIDED TO REGISTER NO OBJECTION TO THE AMENDMENTS AS PUT FORWARD.

Copy. Original 40022/55 Uganda

24/11

Uganda 53/1

31st August, 1935.

Sir,

With reference to previous correspondence and in particular to your letter No. 25532/34 of the 17th September, 1934, in connection with proposed Hydro-Electric Investigations in Kenya and Uganda, which have now taken place, I have the honour to transmit for the information of the Secretary of State a copy of correspondence marginally noted on this subject with the Governments of Kenya and Uganda. We trust that the references made to prospective payments from the Colonial Development Fund are in order.

2. The Consulting Engineers' charges referred to (not here detailed) appear to us to be appropriate to the work done and as nearly in accordance with the original estimates as the circumstances might be expected to permit. We are therefore paying these charges forthwith from the Suspense Account opened in our books in this connection, for allocation in due course.

3. It will be seen that a copy of this letter is being sent to the Governments of the Dependencies concerned.

I have the honour to be,

Sir,

Your obedient servant,

No 24

25532/34

Uganda

No 24, 25109/34 Kenya

Treasurer,

Uganda, 2.8.35.

Treasurer,
Uganda, 31.8.35
and first
enclosure.

Treasurer,
Nairobi, 31.8.35

Uganda. 53/1

U.S. 7(1936)/202

COPY OF LETTER FROM THE TREASURY, ENTebbe, UGANDA, TO CROWN AGENTS.

2nd August, 1935,

AIR MAIL

Gentlemen,

With reference to my letter No. T.10/1/A/754 of the 20th July, and previous correspondence on the question of Hydro Electric development in this Protectorate, I should be grateful if you would inform me whether, in your opinion, all expenditure in connection with the Investigations etc., is likely to be completed and all contributions from the Colonial Development Fund received by the end of the current year, and the Advance account closed. This information is required in order that I may know what provision, if any, to make in the Protectorate Estimates for 1936.

I have the honour to be,

Gentlemen,

Your obedient servant,

(Sgd) ?

TREASURER.

31st August, 1935.

BY AIR MAIL

Sir,

With reference to your letter No.U.43/7(1936)802 of the 2nd August on the subject of the Hydro-Electric Investigations, I have the honour to inform you that the final items of expenditure in this connection are now in view, and it should be possible shortly, we anticipate, to submit to the Governments of Kenya and Uganda our suggested allocations of the total expenditure. Provided that it is then found possible to concur in our suggestions, we think it is likely that the necessary contributions from the Colonial Development Fund will be received by the end of the current year. We do not think, therefore, that any provision in this connection should require to be made in the Protectorate estimates for 1936.

2. As regards the likelihood or otherwise of ready approval being possible to our eventual suggestions as to final allocation, it may be mentioned that the Consulting Engineers' have, in a letter of which a copy is attached, furnished definite suggestions, based on their own experience of the matter, as to the proportions in which the main items of (a) cost of the reports themselves and fees and office charges due to the Consulting Engineers, and (b) totals of
joint/

15.8.35
The Treasurer,
P.O.Box 6,
Entebbe,
UGANDA.

joint expenditure, should be divided: These suggested allocations do not depart very materially from the corresponding proportions in the original estimates of expenditure, and in any case, in view of the Consulting Engineers' subsequent experience in the matter, we think their remarks in this connection should be accepted. We are proceeding accordingly, and the communication of these remarks will doubtless facilitate in due course the approval of our figures and subsequent adjustment.

27

31.8.35

3. I also enclose for information, a copy of a letter which we have addressed to the Colonial Office regarding their payment forthwith of the Consulting Engineers' fees.

4. In connection with your letter T.10/1A.754 of the 20th July forwarding statement of local expenditure in this connection during the months of February and March, we have received no subsequent similar statement and shall be glad if you will send us by return air mail a corresponding statement for the remaining period, i.e., up to the departure of Mr. Thomson on the 6th May. Salary payments made by us and the hotel expenses referred to in your letters of the 4th and 9th May should be excluded, as these items appear in our Suspense Account.

5. A copy of this letter is being sent to the Treasurer, Nairobi.

I have the honour to be,

Sir,

Your obedient servant,

for Crown Agents.

COPY OF LETTER FROM PREMCE, GARDEW & RIDER TO CROWN AGENTS.

8 & 10, Queen Anne's Gate,
Westminster,
S.W.1.

15th August, 1935,

Gentlemen,

O/Uganda 53

Kenya & Uganda Hydro-Electric Investigations and Reports.

With reference to your letter of the 20th September 1934, we beg to send herewith the accounts of Messrs. Coode, Wilson, Mitchell & Vaughan Lee and of this office for services rendered since 1935, respecting hydro-electric schemes on the Tana River in Kenya, and of the 29th June, 1935, respecting hydro-electric power in Uganda.

2. The total of the two accounts amounts to £2,069. 10s.0d. and if it should be necessary to allocate the charges partly to Kenya Government and partly to Uganda Government we suggest that a proper division would be:-

Kenya Government	£.	s.	d.
	600	0.	0.
Uganda Government	<u>1,469</u>	<u>10.</u>	<u>0</u>
	<u>£2,069.</u>	<u>10.</u>	<u>0.</u>

The greater portion of the staff and office charges, the printing, etc., are due to the detailed work which has been necessary for the schemes prepared for the Uganda Report. In connection with the expenses incurred by your office for the services of Messrs. Hughes, Naylor and Thomson, we suggest that about one-third should be chargeable to the Kenya Government and two-thirds to the Uganda Government.

We are, Gentlemen,

Your obedient Servants,

(Sgd) Premce, Gardew & Rider

31st August, 1935.

BY AIR MAIL

Sir,

From Treasurer,
Uganda. 2.8.35

To Treasurer,
Uganda. 31.8.35

From Messrs.
Freese, Cardew &
Rider. 15.8.35

To Colonial
Office. 31.8.35

With reference to our letter of the 2nd August respecting matters of accounting in connection with the recent Hydro-Electric Investigations, I have the honour to transmit for information a copy of the correspondence marginally noted.

I have the honour to be,

Sir,

Your obedient servant,

For Crown Agents.

The Treasurer,
Nairobi,
KENYA.

ALL COMMUNICATIONS
TO BE ADDRESSED TO THE
CROWN AGENTS FOR THE COLONIES,
THE FOLLOWING REFERENCE AND THE
DATE THIS LETTER BEING QUOTED.

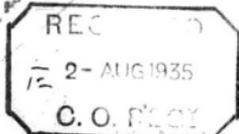


O/Kenya 87.

TELEGRAMS: "CROWN, LONDON."

TELEPHONE: VICTORIA 7730.

Not available



4. MILLBANK,

LONDON, S.W.1.

1st August, 1935.

Sir,

No 62.
23108/34

With reference to our letter O/Kenya of the 2nd February, regarding the possibility of the Railway workshops in Nairobi providing themselves with their own supply of electric power, I have the honour to enclose a copy of a letter and enclosure now received from the General Manager Kenya and Ugandan Railways and Harbours in the matter.

27.6.35.
& encls.

I have the honour to be

Sir

Your obedient servant

J. C. ...
for Crown Agents.

The Under Secretary of State,
Colonial Office.

COPY OF LETTER FROM GENERAL MANAGER, KENYA & TO CROWN AGENTS.

EF 3111

General Manager's Office,
Nairobi,

27th June, 1935.

Gentlemen,

With reference to your letter No.0/Kenya 87 of the 29th January last, enclosing a copy of your Consulting Electrical Engineer's letter regarding the Administration's proposed scheme, prepared as an alternative to continued supply of power by the East African Power and Lighting Company, I have to state that, as a result of further negotiations with the Company, it has been possible to arrive at a satisfactory settlement, particulars of which are contained in the attached copy of a letter addressed today to the Company.

This settlement represents a saving, based on 1934 consumption and the present rates of £1,479 per annum.

I have the honour etc.

(Sgd) G.D.Rhodes.

General Manager.

32
27th June, 1935.

EP. 3111

The Secretary,
The East African Power & Lighting Company Limited,
Stanley House,
Nairobi.

Dear Sir

Supply of Power to Nairobi Workshops.

With further reference to your letter of the 20th instant, I have to state that I am prepared to enter into a new Agreement with your Company for the supply of electric power for a period of five years from the expiry of the present Contract, on the basis of £6.17.0. per annum per KVA of maximum demand and 3.25 cents per unit consumed, any increase in the recorded KVA not to result in any retrospective increased charge.

I shall be glad to receive from you the new draft Agreement.

Yours faithfully,

G. L. Rhodes.

General Manager.

pmc

C. O.

R. 29738082/35

9

Kenny

Mr. Fenton 8/5
Mr. Flood. 9
Mr.

Mr. Parkinson.
Sir G. Tomlinson.

X Sir C. Bottomley. 9. 5 - 187

Sir J. Shuckburgh.

Permt. U.S. of S.

Party U.S. of S.

Secretary of State.

18/5/35 at meal
Hob

Added & sent
3.0 p.m.
18.5.35
S.F.D.

DRAFT. Tel.

Gov. Navabi

N^o 124 Conf. your let
95 Conf. I concur in
views expressed in last
paragraph. Company's
application with no doubt
be accompanied with
full particulars of alternative
land offered.

SECRET.

FURTHER ACTION.

RECEIVED
COPY FOR REGISTRATION

8

TELEGRAM from the Officer Administering the Government of Kenya to the Secretary of State for the Colonies.

Dated 3rd May, 1935. Received in the Colonial Office at 11.5 a.m., 3rd May, 1935.

No. 95. Confidential.

No 3
Your despatch No. 281 of the 23rd April 1935 Hydro Electric development. Before submitting formal application East African Power and Lighting Company is anxious for obvious reasons to know whether permission to proceed with original scheme is likely to be withheld on political grounds. No 8 see Kenya despatch of 30th June 1930 No. 436. I am advised 1666/30 that political objections existing when approval was withheld from former application do not exist to the same extent at the present time. Some opposition from Native Sources may be anticipated but having regard to conclusions reached in the last paragraph of Engineer's report I am of the opinion that it would be difficult for the Government to refuse permission on this ground alone since the sine qua non of the grant of permission to Company would be that land of the equivalent area and agricultural value should be given to the Natives in exchange. Attorney General agrees in the view held by McGregor vide enclosure to despatch already quoted that scheme is in the "general interests of the public of Kenya".

Ann. 9 Dec.

In these circumstances whilst I consider it would be inadvisable to give the Company any assurance that its application will be considered on its merits apart from any political consideration which may arise after publicity has been given to its application, I should be glad to have your authority to intimate to the Company that the Government is prepared to consider its application in the light of circumstances as they at present exist.

ALL COMMUNICATIONS
TO BE ADDRESSED TO THE
CROWN AGENTS FOR THE COLONIES,
THE FOLLOWING REFERENCE AND THE
DATE OF THIS LETTER BEING QUOTED.



35

O/Uganda 53

TELEGRAMS: "CROWN, LONDON."
TELEPHONE: VICTORIA 7730.

4. MILLBANK,
LONDON, S.W.1.

6/4/35
Dist 9 ambs. available

RECEIVED
22 MAR 1935
C. O. REGY

21st March, 1935.

Sir,

No 58
16. 3. 23/108/34
35.

With reference to our letter of the 28th November last, O/Uganda 53, and previous correspondence, I have the honour to transmit a copy of a letter now received from Messrs. Preece, Cardew & Rider and Coode, Wilson, Mitchell & Vaughan-Lee, constituting their joint report in connection with the reference made to them on the subject of the possibilities of hydro-electric development in certain districts of Kenya.

I have the honour to be,

Sir,

Your obedient Servant,

R. Hamond
for Crown Agents.

The Under Secretary of State,
Colonial Office,
S. W. 1.

*copy to Kenya (3)
T. W. G.
C. O. R. C. 7*

TELEPHONE, VICTORIA 5908 (3 LINES).
TELEGRAMS, CREEPHOLE, PARL. LONDON.

TELEGRAPHIC / A. B. C., BENTLEY'S, BROOMHALL'S,
CODES USED / HAMILTON'S WIRE, WESTERN UNION.

AHP/CH
REECE, CARDEW & RIDER,
CONSULTING ENGINEERS.

SIR ARTHUR REECE. J. H. RIDER.
EVAN FARRY. W. H. GRIMSDALE.
O. W. KENNAWAY. R. W. WEIGHTMAN.

36
8 & 10, QUEEN ANNE'S GATE,
WESTMINSTER, S.W.1.

10th March, 1935.

The Crown Agents for the Colonies,
4, Millbank,
Westminster,
S. W. 1.

Gentlemen,

O/Uganda 53.

We have the honour to submit our report for the information of the Government of Kenya upon certain projected hydro-electric developments in the neighbourhood of Nairobi and referred to in your letter to us of the 20th September, 1934.

- (2) The East African Power & Lighting Company, the present Licensees, have already developed a hydro-electric power scheme of 4,000 kilowatt capacity near the junction of the Maragua and Tana Rivers about 45 miles north-east of Nairobi, and they are desirous to extend this development. The Company's proposal, however, involves the construction of a dam in the Tana River, and as a consequence some 1,500 acres of native reserve land, partly cultivated by natives, would be flooded.

It had been suggested to the Kenya Government some few years ago that the proposed development by the East African Company was unnecessary, as there were other possible schemes with greater developments of power, not involving the disturbance of natives, further down the Tana

The Crown Agents for the Colonies.

River in an easterly direction at the Seven Forks some 35 miles distant from the junction of the Maragua-Tana Rivers. It was claimed that, though the distance over which transmission lines would have to be provided would be nearly doubled, the capital cost of the necessary civil engineering works would be lower, and there were possibilities of producing up to 20,000 kilowatts. The Kenya Government were consequently anxious to ascertain what were the commercial possibilities of any scheme in the neighbourhood of this area, known as the Seven Forks area.

- (3) As arrangements had recently been made with us by the Government of Uganda, through you, to send out three Engineers to Uganda to investigate possible hydro-electric developments in that Protectorate, the Kenya Government obtained the approval of the Colonial Office to utilise the services of these Engineers to investigate the suitability of the Tana River both in the Seven Forks area and also in the area proposed by the East African Company at Maragua-Tana, and we have now reviewed the results of their investigations.
- (4) The three Engineers, Mr. Hughes, Electrical Engineer, Mr. Naylor and Mr. Thomson, Civil Engineers, arrived at Nairobi on November 20th. Very complete arrangements had been made by the Director of Public Works and the management of the East African Company to facilitate the inspections. They were also handed by the Colonial Secretary detailed instructions regarding the points which the Government desired them to consider. We attach to this report a copy of these instructions dated 22nd November, 1954 (Appendix I).

The Crown Agents for the Colonies.

(5) The Engineers by means, first, of an aerial survey, and subsequently by visits extending to some eight days in the case of the Seven Forks area and six days in the case of the Maragua area, were able to send to us full reports to which we refer later. As a result of their investigations, the Engineers were in a position to place before the Colonial Secretary in Nairobi their preliminary conclusions, and we attach to this report a copy of their letter signed by Mr. Hughes and Mr. Naylor, dated the 24th December, 1954 (Appendix II). It will be noticed that in this letter the opinion expressed was in favour of the Company's proposal for the development of the Maragua-Tana Scheme, and they did not think any useful purpose would be served by a more detailed survey of the Seven Forks area.

(6) The merits of any alternative hydro-electric schemes must depend upon their suitability for meeting the present and the probable future demands for power and upon the capital cost. It is obvious that it would be uneconomical to develop a hydro-electric scheme capable of producing some 20,000 kilowatts at a capital cost of, say, £750,000 if there was little prospect of a demand reaching 20,000 kilowatts for some 25 years or more. The difficulty with many hydro-electric schemes is that the civil engineering work, such as dams, river diversions and canals, generally require to be constructed to suit the ultimate developments of the scheme. The mechanical and electrical equipment can, of course, be provided in sections as the actual demand grows. The civil engineering work required for a large scheme may hence be a heavy burden upon an undertaking.

The Crown Agents for the Colonies.

39

It is consequently necessary to keep in view the probable immediate future demands for electricity in Nairobi and the surrounding areas, and also the fact that, as a commercial company, it is essential for the Licensees to avoid unnecessary capital expenditure which might cause high prices and thereby stifle growth in demands.

(7)

With regard to the development of electricity supply in Nairobi and district, Mr. Hughes made a general survey of the present and the probable future demands. The normal industrial load is required mainly from 8.0 a.m. to 4.0 p.m. and the lighting load comes on, about 6.0 p.m. There is also an industrial load from certain factories, owing to special cheap rates, during the night after the lighting demand has ceased. The present maximum demand in the whole area of supply is about 2,500 kilowatts of which the sisal plantations take about 800 kilowatts.

Mr. Hughes estimates that, with the present rate of growth which is about 12% per annum, the probable future demand will reach 4,000 kilowatts by 1940 and about 8,000 kilowatts by 1947.

The existing plants at Maragua, Ndula and Mesco (all hydro-electric) and at Nairobi (oil engines) are capable of supplying a maximum load of about 3,000 kilowatts, providing the flow of water in the Maragua is normal. If, however, the flow there is reduced, as it was in April 1934 by drought, the existing plant at Maragua can only produce about 700 kilowatts. As the other stations, including the oil engine plants could only produce 1,185 kilowatts between them, the Company were only able to maintain its supply in April 1934 by

cutting off temporarily the supply to the sisal plantations.

- (8) With regard to the flow of water in the Tana River, our Engineers were informed by letter (dated December 18th, 1934 - Appendix III) a copy of which is attached, from the Director of Public Works that at the junction of the Maragua-Tana the reservations in the Tana River for irrigation purposes would be 56 cusecs, and that in the case of the Seven Forks Schemes the reservation would be 130 cusecs of the flow of the Thika, which is the whole of the minimum dry weather flow of that river, and 70 cusecs of the flow of the Tana, making a total reservation for irrigation of 200 cusecs out of the estimated minimum flow of 330 cusecs at the Seven Forks complex.

- (9) As a result of the various reports received by us from our Engineers, we have to make the following remarks.

Seven Forks and Neighbouring Schemes.

The district known as the Seven Forks area of the Tana River is situated about 75 miles in a direct line from Nairobi where the Tana River, reinforced by the Thika and the Thiba, flows down a series of rapids which have a total fall of about 1,000 feet in the course of 33 miles starting from a point just above the Elephant Falls. As the result of the aerial survey the Engineers reported:-

"We flew right down the Tana at about 150 feet up and were able to see that there is no concentration of head anywhere except at the Elephant Falls and at Seven Forks."

Various further flights up and down the River decided the Engineers to confine their detail attention to the Elephant Falls and to the Seven Forks complex.

We should explain that at Seven Forks some few years

The Crown Agents for the Colonies.

ago Mr. Stanley, a local engineer, on behalf of the East African Company, inspected the Tana River and prepared a tentative scheme for a possible development up to 10,000 kilowatts at a certain point, and in the following reports it has been referred to as Stanley's Scheme.

(10) Mr. Naylor, the Civil Engineer, in his sixth report has made the following remarks:-

"Seven Forks Area.

Stanley's Scheme. The scheme surveyed by Stanley, and called for convenience "Stanley's scheme", is the most economical single scheme in the Seven Forks area. The dam is sited on a bar of sound gneiss. The aqueduct is largely in exposed rock and there is a suitable line for pipe lines and site for power station The available power is only 7,000 kilowatts at minimum flow, owing to the revised minimum flow of 830 cusecs and the reservation of 200 cusecs for irrigation purposes; Our total cost works out at £381,000. Capital cost per kilowatt is 255."

"Lower Seven Forks Scheme. There is, however, a further fall of at least 170 feet, according to aneroid levels in the Seven Forks complex As the length of canal, pipe line and head available are about the same the cost would be about the same as for Stanley's Scheme."

"Elephant Falls Dam. The presence of valleys and the flat gradient preclude a scheme depending upon an intake, canal and pipe line in the Elephant Falls area. There are, however, three possible sites for a high dam "

Mr. Naylor then discusses two other sites which appear to contain difficulties for a dam and then refers to the

"Lowest Elephant Dam Site."

"A narrow deep gorge at the foot of the rapids is an ideal site for an arch dam, but the enormous flood flow and the absence of a site for a power station make this impossible. A design was got out showing a dam of gravity section The maximum flood level would be about 20 feet over the crest A feature of this scheme is that the reservoir formed permits of

sufficient storage to cope with the fluctuation of the daily load, thus allowing of a peak load of 8,500 kilowatts with a head of only 100 feet. However, the cost of this scheme is greater than Stanley's scheme, our estimate being £509,000. This works out at £60 per kilowatt in capital cost."

"Other Schemes in the Seven Forks Area. In the 25 miles of river comprised under the above heading, there is no possibility of a development equal in magnitude to the above schemes. Should the demand ever arise for more power than can be produced by the Tana Scheme the development of Stanley's scheme, the Lower Seven Forks scheme and the Elephant Dam schemes would be an economical proposition and would produce between them a further 22,500 kilowatts."

- (11) It should be mentioned that the existing power station of the Licensees at Maragua is already accessible by suitable roads. In the case of any scheme, however, at Seven Forks, it is necessary to construct new roads over rather a difficult country. The district around Seven Forks also requires clearing of bush, and it is at present unhealthy and uninhabited. The presence of game between Seven Forks and Ndula, through which country new transmission line routes must be constructed, necessitates steel towers somewhat larger than the usual type to avoid any risks of interference, for example, by full grown giraffes.

Mr. Hughes reports that, owing to certain difficulties of the ground to be covered and the expense of maintenance of access roads if the shortest route is taken, the main transmission lines should preferably be taken close to the existing and new roads. This makes the total length of the main transmission lines from Nairobi to the Stanley site via the existing station and transforming plant at Ndula (which is 37-1/8 miles from Nairobi) about 90 miles, of which 62 miles will be close to the existing roads.

The Crown Agents for the Colonies.

Provision for the transmission lines and construction of the roads has been made in the estimates.

The length of the existing transmission line from Nairobi to the Maragua-Tana Power Station is about 50 miles.

Maragua-Tana Scheme.

(12) The small power station at Maragua-Tana recently constructed by the Licensees consists of two 2,000 kw. hydro-electric plants working at a head of 240 feet. The available output varies from 700 kilowatts to 2,300 kilowatts according to the flow of water in the Maragua.

Complete new surveys have been made by the licensees of the country in the area of the Tana River up to Mathioga River, and it has been ascertained that there is a minimum flow in the Tana River of 580 cusecs of which 38 cusecs is reserved for irrigation, and by the construction of a dam and a 2-1/2 mile canal a fall of 225 ft. can be secured which would be capable of producing with daily storage on a load factor of 50% about 11,000 kilowatts. This scheme involves only a short dam about 70 feet high above the foundation level. The building of this dam, however, will cause the flooding of native reserves having an area of about 1,500 acres now partly cultivated. The proposed canal would be designed and constructed to carry the full supply of water, i.e., 580 cusecs, but the existing generating station would only be extended as and when required.

(13) We instructed the Engineers, when considering the proposals of the Licensees, to look specially into the question of any possible variations from the Licensees'

The Crown Agents for the Colonies

proposals which might remove the necessity for the flooding of the 1,500 acres of reserved land.

Mr. Naylor's report contains the following remarks:-

"The Company's scheme for the Tana at Maragua is the most economical possible scheme. The survey has been checked by us and found to be substantially correct. The siting of the dam at the constriction in the valley at the top of the rapids is the obvious one. The gradient of the aqueduct is fixed by the level of the edge of the gorge and a very suitable site for a head pond some 15 feet below the present Maragua head pond. The canal so fixed is for the most part above the edge of the gorge, but it would have to be formed in the side of the gorge for a short distance.

In order to remove the chief objection to the Tana project, viz., the flooding of 1,500 acres of native reserve, a low dam and low level aqueduct was considered. By reducing the crest level from plus 240 at Company's datum to plus 200 the flooding would be confined to the gorge and the cultivable land submerged would be nil. The aqueduct would now lie entirely along the steep sides of the gorge.

..... Such a canal would be very expensive, and I estimate that the saving on the dam would be just about counterbalanced by the increased cost of the aqueduct and head pond. There would no longer be daily storage so that the peak load would be reduced to one half. It is further reduced on account of the lower head so that the available peak load becomes only 4,600 kW."

(14) A further scheme was also considered for building dams across the Tana and Mathiyo above the proposed flooded area. The Engineers report, however, that a canal would be necessary in deep cutting or in tunnel to connect the two rivers and the gradient of the main aqueduct would be very flat. The cost of the construction of such a canal would be prohibitive. There is, however, a suitable site for a dam founded entirely on rock some distance below the junction of the rivers, but even here the cost of the canal works out to be prohibitive, the total cost being £388,600. Moreover, with this scheme about 500 acres remain flooded and the area is the most fertile and most densely cultivated.

The Crown Agents for the Colonies.

(15)

The plants to be provided for the proposed schemes either at Maragua-Tana or at Seven Forks will not be identical. At the present time there are the two units of 2,000 kilowatts each at Maragua-Tana, and as soon as the necessary civil engineering work is constructed on the Tana the full flow of water will always be available. Consequently, the Company are then assured of a continuous output of 4,000 kilowatts from Maragua-Tana. In the event of the failure of one of the 2,000 kilowatt units coinciding with a period of low water, the Company could still maintain an output of over 3,185 kilowatts by bringing into service the old plants at Ndula, Meso and Nairobi. Hence the provision of the civil engineering work and one additional pipe line only would suffice for the anticipated demands in Nairobi and district up to about 1939. Probably in 1938 it would be advisable for the Licensees to add one 4,000 kilowatt unit. In 1946 or so it may be necessary to add a second 4,000 kilowatt unit which would bring the maximum output up to about 11,000 kilowatts.

(16)

The Seven Forks scheme would have to be carried out on a different basis as the supply system would remain dependent upon the fluctuating output from Maragua and a possible drop there to an output of 700 kilowatts in times of drought. Consequently, new plant of 4,000 kilowatt capacity must be provided at the outset. It should preferably consist of two units each of 2,000 kilowatts to allow for the failure of a plant. The future output with the assistance of the four existing plants may be estimated at 4,000 kilowatts during droughts. The growth in the demand in Nairobi and district

The Crown Agents for the Colonies.

will necessitate the addition of a 4,000 kilowatt unit by 1940 or thereabouts. The final provision of a second 4,000 kilowatt unit will be required about 1946, and it would bring the maximum output up to about 9,000 kilowatts except at times of minimum flow at Seven Forks. It is clear, that, if the flow at Seven Forks is at a minimum, the output from that station will be reduced to 7,000 kilowatts, and as the flow at Maragua and Ndula will also be at its lowest, only 700 kilowatts may be available at the former and 600 kilowatts at the latter station. We are of the opinion, however, that even with the reservation for irrigation which may be modified slightly in occasional times of extreme drought, it is reasonable to calculate on an output of 9,000 kilowatts at all times with the Stanley plant and the help of the existing plants.

The adoption of a scheme at Maragua-Tana would enable the Licensees to get the full benefit throughout the year from the expenditure already incurred at Maragua. It would also meet the immediate future demands by an expenditure upon only civil engineering work of about £190,000 plus the cost of resettling the native cultivators whose land will be flooded when the dam is built, whereas the Seven Forks scheme would involve an immediate capital cost of not less than about £300,000. We have not attempted to estimate the cost of resettling the natives who are at present in beneficial occupation of the site of the proposed reservoir, as this question must necessarily be dealt with by the Government Department concerned.

(17) Mr. Hughes and Mr. Naylor came to the conclusion that the Licensees' proposed dam on the Tana, designed to take

The Crown Agents for the Colonies.

47

advantage of the daily storage, is the only rational one from a commercial point of view. The cost of the civil engineering works in connection with Maragua-Tana scheme is estimated as being about £179,000 excluding contingencies. The Licensees themselves had mentioned that the cost might be in the neighbourhood of £100,000, so that in this respect the Company appear to have underestimated the cost of the civil engineering work.

- (18) It has been suggested that the construction of a reservoir of about 1,500 acres on the Tana would increase the danger of malaria in the surrounding country. We suggest that any risk of this nature could be guarded against by including a clause in the Licence or Concession, making it obligatory for the Licensees to maintain such anti-malarial measures in and around the proposed new reservoir and canal as the Medical and Health Department of the Kenya Government may consider necessary.

- (19) In conclusion it may be a convenience to summarise the results of the investigations as follows: The most suitable scheme in the Seven Forks area is that known as the "Stanley Scheme." In this case there would be an output of about 7,000 kilowatts with the minimum flow of water. On the other hand, the Maragua-Tana Scheme would always have an output of about 11,000 kilowatts. The estimated costs, as given by the Engineers, are attached (Appendices IV and V). They have been checked by us so far as we have been able to do so, and for the reasons given in paragraph (16) we have omitted the provision for compensation for flooding, but we have considered it desirable to add a further 10% for contingencies. Consequently, the estimated capital

The Crown Agents for the Colonies.

expenditures with Stanley's Scheme is £419,100 and with the Maragua-Tana Scheme £299,860 plus the cost of settling native cultivators. The Maragua-Tana Scheme would thus entail a saving of about £100,000 and with the plant allowed for in the estimate be able to supply some 2,000 kilowatts more to Nairobi and district at periods of the minimum flow of water.

(20) It is evident that the construction of the hydro-electric scheme at Maragua-Tana instead of in the Seven Forks area will be of considerable advantage to the Licensees not only in the capital expenditure, but also with respect to the staffs required and to a reduction in transmission line losses over some 50 miles in place of nearly 90 miles. It is, therefore, not unreasonable to expect that, if the Licensees are permitted to make use of the Tana River above the confluence of the Maragua River, it should result in appreciably less prices for electricity than would be the case if developments had to take place in the Seven Forks area.

Briefly put we are of the opinion the scheme proposed on the Tana River by the Licensees, so designed as to take advantage of the daily storage, is without doubt the proper and most economical method of meeting the growing demands for electricity in Nairobi and surrounding districts.

We are, Gentlemen,

Your obedient Servants,

(Signed) PREECE, CARDEW & RIDER.

(Signed) GOODE, WILSON, MITCHELL &
VAUGHAN-LEE.

The Secretariat,
Nairobi.

22nd November, 1934.

Gentlemen,

With reference to your conversation of yesterday's date with the Colonial Secretary, I am directed to indicate to you the lines on which this Government desires your investigations to proceed, as follows:-

1. To examine the potentialities of the Tana River in the vicinity of the Seven Forks taking into consideration
 - (a) maximum power capable of development in that power reach of the river;
 - (b) the power likely to be required for consumption within the distributing area of the East African Power & Lighting Company within a reasonable period of years.
 - ii. To compare the relative merits from an economic aspect of the Maragua-Tana Scheme and the most suitable project in connection with the Seven Forks power reach.
 - iii. To investigate the possibility of designing works to utilise the Tana and Maragua Rivers above the Maragua confluence to generate power without involving the flooding of a large area of land.
 - iv. To advise Government generally on any other matters which may assist Government in arriving at a decision as to the comparative merits of the two schemes referred to in ii.
2. The arrangements made to enable you to undertake these investigations have already been communicated to you.

I have the honour to be, Gentlemen,

Your obedient servant,

for COLONIAL SECRETARY.

Messrs. A. E. Hughes.

A. H. Naylor.

Nairobi,

24th December, 1934.

Sir,

As agreed at our meeting this morning with yourself and the Postmaster General, we have the honour to attach hereto a copy of the sheet setting out the comparative costs of the various Hydro-Electric Schemes we have investigated, together with sheets giving details of the progressive stages at Maragua-Tana and Seven Forks.

2. As we told you this morning, it is understood that the figures now submitted are to be treated as preliminary only since they are subject to confirmation by our respective firms in London.

3. The result of our investigation shows that the most advantageous scheme is that originally proposed by the East African Power & Lighting Company on the Tana just above the Maragua confluence. In addition, you will see from a comparison of the figures detailed on the enclosed sheets that this scheme shows to greater advantage during the intermediate stages of development.

4. In view of this result, we do not consider that it would be useful at this stage to investigate the possibilities of the Seven Forks area any more closely.

We have the honour to be, Sir,

Your obedient Servants,

(Signed) AUBREY E. HUGHES.

(Signed) A. H. NAYLOR.

The Hon. The Colonial Secretary,
Nairobi.

Ref. No.
D.1689/117/3/1/16.

PUBLIC WORKS DEPARTMENT
Head Office,
Nairobi,
Kenya Colony.

16th December, 1934.

A. H. Naylor, Esq.,
c/o New Stanley Hotel,
Nairobi.

Sir,

Referring to our conversation last week, I have the honour to inform you that, in any authorising document issued to the East African Power and Lighting Company for the utilisation of the water of the Tana River for the development of power, Government would reserve the right to grant authority for diversions of water from the Tana River and its tributaries, above the point of draw-off, of such a nature and extent that they might, in the aggregate, have the effect of reducing the available flow by the amounts stated in the authorising document. In other words, the flow available for the development of power at the selected site would be liable to reduction below what it is at present to the extent of the reservation.

2. It is, of course, impossible to say at what time or times in the future that reservation would be acted on to any extent which would materially affect the flow which would otherwise be available at the selected site. It is, however, the case that certain projects for the employment of water for irrigation have been under consideration during recent years, and in the event of these or one of them being put into effect, the encroachment on the reserved flow might be substantial.

3. In the case of power development just above the Maragua-Tana confluence, it is likely that the reservation of the flow of the Tana River would be 38 cusecs.

4. In the case of power development at the Seven Forks site, it is likely that the reservation would be:-

- (1) 150 cusecs of the flow of the Thika River.
- (2) 70 cusecs of the flow of the Tana River
excluding the above contribution from the
Thika River.

In respect of the Tana River these reservations are based on 10% of the estimated minima of the flow of the river at the sites mentioned.

I have the honour to be, Sir,

Your obedient servant,

(Sgd.) H. L. SIKES.

Director of Public Works.

ESTIMATES FOR THE STANLEY AND MARAGUA-TANA SCHEMES.

Stanley's Scheme.

New plant installed.	4,000	8,000	12,000
	£	£	£
<u>Civil engineering works, including</u> house and quarters ...)	125,000	125,000	132,000
<u>Pipe lines</u> ...)	14,000	22,000	42,000
<u>Mechanical and electrical</u> equipment ...)	35,000	44,250	68,000
<u>Transmission lines and sub-</u> stations ...)	95,000	99,500	129,000
<u>Road transport</u> ...)	4,000	6,250	10,000
	273,000	303,000	381,000
Contingencies ...	27,300	30,300	38,100
	300,300	333,300	419,100

Maragua-Tana Scheme.

New plant installed.	Nil	4,000	8,000
	£	£	£
<u>Civil engineering works, including</u> power house and quarters ...)	166,000	174,000	183,000
<u>Pipe lines</u> ...)	7,000	7,000	14,000
<u>Mechanical and electrical</u> equipment ...)	-	14,300	33,500
<u>Transmission lines and substations.</u>	-	3,700	42,100
	173,000	199,000	272,600
Contingencies ...	17,300	19,900	27,260
	190,300	218,900	299,860

53
and

SUMMARISED ESTIMATES FOR THE COMPLETE STANLEY
AND MARAGUA-TANA SCHEMES.

Stanley's Scheme.

12,000 kilowatts of new plant installed.

<u>Civil engineering works</u> , including power	£
house and quarters	132,000
<u>Pipe lines</u>	42,000
<u>Mechanical and electrical equipment</u> ...	68,000
<u>Transmission lines and substations</u> ...	129,000
<u>Road transport</u>	<u>10,000</u>
	381,000
Contingencies	<u>38,100</u>
	<u>£419,100</u>

Maragua-Tana Scheme.

8,000 kilowatts of new plant installed.

<u>Civil engineering works</u> , including power	£
house and quarters	183,000
<u>Pipe lines</u>	14,000
<u>Mechanical and electrical equipment</u> ...	33,500
<u>Transmission lines and substations</u> ...	<u>42,100</u>
	272,600
Contingencies	<u>27,260</u>
	<u>£299,860</u>