

CONFIDENTIAL.

UTI/POW/2#13

SECRETARIAT

(Formerly)

| | |
|------|-------|
| 2459 | 2459. |
| | |

2459

ITEMS FOR CAPITAL

PROGRAMME 1970-

CONNECTED FILES.

NUMBER

1714

Electricity Department

CLOSE

EXECUTIVE COUNCIL

INF/25/69

Capital Projects
Memorandum by the Colonial Secretary

At the Standing Finance Committee meeting of 4th/5th December, I mentioned to members that I had been keeping a progressive though short list of capital projects which I had originally thought it would be wise to consider, with a view initially to deciding on priorities, in the context of the forthcoming annual estimates exercise. However, the urgency for looking at the capital proposals in respect of new electricity generating plant resulting from recent mechanical failure in the present plant together with the results, as yet unpredictable but which might affect capital finance questions, of the communications study currently in train indicate the need for a paper to be circulated as soon as possible.

2. Attached hereto as Annexures 1, 2 and 3 respectively are
- (i) a tentative list of capital projects;
 - (ii) alternative schemes for new electricity generating equipment;
 - (iii) a projection of recurrent savings expected to result from (ii)

J. A. Jones
Colonial Secretary

File Reference 2456
11th December, 1969
JML

CAPITAL PROJECTS

| | <u>Description</u> | <u>Capital Cost</u> | <u>Recurrent Cost</u> | <u>Remarks</u> |
|---|--------------------------------------|---------------------------|--|--|
| 4 | Airfield | 280,000 | 50/60,000 | Single runway only. Includes radio and ^{airfield} costs ✓ |
| Priority 1 | Power Station | (a) 130,000 (b) 95,000 | (Reduction in recurrent expenditure anticipated) | (a) Based on installation of 3 new diesel generators. (b) Based on installation of 2 new diesel generators and retention of 2 new old ones (c) Results in recurrent reductions. |
| 7 | Stanley Roads (Concreting) Programme | 200,000 | | £20,000 worth of concreting annually for 10 years. |
| Tentative 2 enquiry ? into h. has in 3 together | Agriculture Advisory Service | 75,000 | Depends on future pattern after 3-year life as capital project | Total £75,000. £20,000 represents F.I.G.'s share on C.D. & W base which however may not apply to A.I.D. arrangements. |
| | Hydatid Disease Eradication | 15,000 | | A hypothetical F.I.G. contribution to a 5-year eradication campaign. |
| 7 | Stanley Roads (Retarring) Programme | 15,000 | | Being re-estimated currently by S.P.W. |
| 5 | Investment Projects | 65,000 | | |
| ? | (Swimming Pool | 5,000 | | In addition to funds already raised) |

(£775,000)
 $\frac{1}{5} = \underline{\underline{£155,000}}$

Independent and copies 3/5-7th planing. Will prepare an annual budget; but need more. pr to 2 - to 3m.
? Exh. 100. ? Pol. 100. ? Cash in.

EXECUTIVE COUNCILELECTRICITY DEPARTMENT: POLICYESTIMATED COSTS

Scheme 'A' Three 750 Kw. sets, all existing sets discarded.

Scheme 'B' Two 750 Kw sets, two 200 Kw. sets, to be automated.

| <u>Item.</u> | <u>Description</u> | <u>Scheme 'A'</u> | <u>'B'</u> |
|--------------|---|-------------------|----------------|
| 1 | 750/415 volt. fully automatic, airmatic starting, synchronising, load sharing, etc. diesel alternator sets being completely self-contained and automatic in every respect. <u>Note</u> This estimate is calculated from a December, 1965 offer through the C.As for two 539 Kw sets. Delivery was 44 weeks with price quoted remaining firm for that period. | 109,000 | 72,700 |
| 2 | Freight insurance for Item No. 1 is not calculable as shipping specifications are not known. Provisionally allow: | 2,500 | 1,700 |
| 3 | Steel framed building with sheathing including provision for lifting beams engine foundations, ducting and freight. <u>Note</u> This estimate is calculated from costs of a similar building constructed with contract labour in Stanley by B.A.S. | 10,000 | 10,000 |
| 4 | Installation and modifications to existing control | 2,000 | 2,000 |
| 5 | Automation of the two existing 200 Kw. sets. | | 5,000 |
| 6 | Attendance of Engineer during later part of installation for commissioning trials. Makers estimate minimum of two months, would prefer three. 1965 quote was £20 per day, allow £25 per day for 90 days, plus air fare and Darwin voyage. This item is a Maker's recommend; it may not be considered necessary by the Government | 2,679 | 2,679 |
| 7 | Allow contingencies | 1,000 | 1,000 |
| | <u>TOTALS</u> | <u>£127,179</u> | <u>£95,079</u> |

signed by E. C. Gutteridge
Superintendent Power and
Electrical Department.

14th July, 1969

CONFIDENTIAL

10th December, 1969

JML

4

Present Staff Structure and Proposed Staff
Structure under Conditions of Automation

| <u>Present</u> | | <u>Proposed</u> | |
|----------------------|----------------|------------------------|---------------|
| Superintendent | 1,660 | New Appt. half salary. | 1,000 |
| Asst. Superintendent | 1,310 | Senior Mechanic | 1,310 |
| Senior Electrician | 1,010 | | 1,310 |
| Electrician | 920 | | 920 |
| Electrician | 920 | | 920 |
| Senior Engineman | 920 | Mechanic Diesel. | 920 |
| Engineman | 760 | Redundant | |
| Engineman | 760 | Redundant | |
| Engineman | 760 | Redundant | |
| Engineman | 760 | Redundant | |
| Meter Reader | 200 | | 200 |
| Apprentice | 500 | | 500 |
| Apprentice | 500 | | 500 |
| Apprentice | 500 | | 500 |
| | <u>£11,480</u> | | <u>£8,080</u> |

Provisionally I have shown half salary of £1,000 for Electrical Engineer, one half being allotted to Postal and Telecommunications Department. There would be a corresponding saving there of a further £660. I have assumed a salary of £2,000 for the Electrical Engineer but this may well be increased to £2,500. Salaries are shown at maximum to give comparison, with the exception of the apprentices, where an average wage has been taken.

11th December, 1969
JML

2459

19th December,

69

To: Superintendent of Power & Electrical
Department.

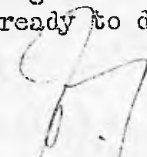
From: Colonial Secretary

Stanley

New Power Station and Generators, Stanley.

It has been decided to make a tentative approach to the Foreign and Commonwealth Office asking them to obtain from British AID^{Staffs} giving some indication of what is likely to be their reaction to an application from the Colony Government for financial assistance, either under C.D. & W or A.I.D. conditions for the power station project which you put forward a few months ago.

2. Attached hereto for your completion, together with any comments you may wish to make and amendments you may wish to suggest is a draft letter to that Ministry for this purpose. I shall be glad if you will get in touch with me by telephone as soon as you are ready to discuss the draft.


J. A. Jones.
Colonial Secretary.

JML

Confidential.

J. 2759. A
11

Draft letter to Sugg, F.C.O.

(from dev. project. file)

New Power Station and Generators, Stanley.

The present Stanley Power Station is now 20 years old. Its generators were purchased from ~~BRITISH ADMIRALTY~~..... as surplus stock after the 1939-45 war and were installed in a building which was designed as a cinema and is unsuitable as a power station. The installation has given ^{good} excellent service but Superintendent of Power and Electricity has for the last few years been sounding a warning note that particularly as neither the equipment nor the building were chosen for the job but were in both cases makeshift solutions taken through force of circumstances, it must be expected that after so long a life trouble would occur.

As re-drafted
in B attached

Earlier this year, in June two tentative schemes were produced locally for the provision of a properly planned power station with automatic equipment, which would for the first time give Stanley a modern power station plant specifically for the purpose and which, because of automation, be expected to reduce annual recurrent expenditure on Staff by some £3,000. I attach hereto a document describing the two schemes.

Stat

The power station proposal is ^{currently} ~~usually~~ only one of a number of capital projects which we have under consideration but a recent fatigue ~~failure~~ failure in one of the generators at the power station institutes our isolating this project from the others and giving it top priority.

As re-drafted
in B attached

You will see from the attachment to this letter estimated cost range of the two schemes proposed is from £160,000 to £130,000 and

Stat

/this.....

this, you will fully appreciate, is no small sum. The purpose of this letter is to ask you to let us know what reaction there is likely to be from the Ministry of Overseas Development if we put forward a proposal, either on a C.D. & W basis or A.I.D. basis, as may be appropriate at the time. Timing is of some importance and it is particularly important for us to know what would be the nature of any financial assistance we might expect to receive under A.I.D. arrangements. (Presumably any C.D. & W. assistance would on the normal 30/20% basis, but I believe it probable that for a project of this kind A.I.D. assistance would be in the form of long-term low interest loan with an initial moratorium of five to seven years.

I need hardly emphasise that the provision of electric power apart from its importance in the context of health services and so on is of great importance in the context of the pilot plant stage of the Alginate Industries project and we would hope for sympathetic consideration ~~for~~ in a situation where finance of the order involved would very seriously deplete our resources and the lack of electric power, seriously impede possible development.

J. A. Jones.
Colonial Secretary.

If it were possible to give me telegraphic advice about the chances of success of such an application it would be most helpful.

B
13

Proposed
Amendments to draft letter to Sugg, F.C.O. F.2459.

1st. Para. The present Stanley Power Station is now 19 years old. The diesel alternators were purchased from the British Admiralty as surplus stock after the 1939-45 war, ~~unfortunately~~ They were obsolete at the time they were acquired, ~~having been superseded by machines of more modern design.~~ They were installed in a building acquired from the Forces which had been intended to be used by them as a cinema. The installation has operated satisfactorily, ~~and~~ although neither the machinery nor the building were designed for the task, ~~have served their purpose.~~ For some time the Superintendent of the department concerned has been advising that consideration must be given to replacement.

2nd. Para. As draft.

3rd. Para. The power station proposal is ~~annually~~ ^{currently} one of a number of capital projects which we have under consideration but a recent structural failure attributed to fatigue in one of the diesel engines at the power station ~~necessitates~~ ^{necessitates} our isolating this project from the others and giving it top priority.

4th. Para. As draft.

Ultimate Para. I need hardly emphasise that the provision of electric power is of ~~extreme~~ ^{great} importance. We are dependent upon it for all public services including water supply, medical services, radio communications and so on. ~~The~~ ^{Electricity} Undertaking also supplies the E.S.R.O. ~~Space research~~ station, British Antarctic Survey communications network and the R.N. and R.M. barracks. It is of great importance ^{also connection with} in the establishment of ~~the~~ ^{the} pilot stage for the Alginate Industries project, ~~and~~ we hope for sympathetic consideration in a situation where finance of the order involved would seriously deplete our resources and the lack of electric power / seriously impede possible development.

Amended

18

CONFIDENTIAL

EXECUTIVE COUNCIL

6/70

Capital Projects

Memorandum by the Colonial Secretary

Previous Reference: Executive Council Meeting No. 17/69, Minute 3

Under cover of Information Memorandum No. INF.25/69 a tentative list of capital projects was circulated to Members and in subsequent discussion in Council it was agreed that enquiries of an urgent nature should be made from the Foreign and Commonwealth Office regarding the likelihood of British financial assistance being provided for the new power station project. At the same time it was agreed that the general plan would need to be carefully analysed and a decision made regarding the best manner in which to approach the various projects.

2. Since the Executive Council Meeting in question more projects have been added to the list of which a revised version is attached hereto as Annexure 1. Two other Annexures are designed to present the tentative plan by sectors (Annexure 2) and to indicate possible sources of aid finance (Appendix 3).

3. Members are aware that the C.D. & W. arrangements which have existed for more than twenty years are to come to an end in early April this year and will be replaced by AID arrangements the exact nature of which we shall ascertain only through experience. However it is a fact that of recent years Britain, while voting her aid funds at a total of approximately £200 million annually has made arrangements for contributing to development programmes covering periods longer than a year. Examples which come readily to mind are Gibraltar among dependent territories and The Gambia among independent states. It is for consideration therefore whether the best tactic for the Falkland Islands Government to adopt might not be to settle, in priority order, the pattern of a development programme as a basis for negotiation with the British Government but at the same time indicating other possible sources of finance (to seek which it must be assumed the British Government's agreement would have to be obtained) in order to quicken British interest. This method should result in our obtaining a reasonably precise idea of the capital contribution the British Government would expect of the Colony Government which in turn would enable the Colony Government to make some calculation of the probable life of its reserves. This in turn would enable an assessment of the political implications to be made. For this reason the list of projects in the attached annexure has been given a suggested order of priority (as a basis for discussion only) and an indication has been given of which projects can be regarded as significant revenue-earners or expenditure-savers and which cannot.

4. Members are invited to consider whether the method proposed in the preceding paragraph should be pursued in an endeavour to establish a realistic and worthwhile development programme and at the same time evaluate its political practicality.

(J. A. Jones)
Colonial Secretary.

File Ref. 2459
27th January, 1970
JML

CAPITAL PROJECTS

| Priority | Description | <u>Hypothetical Capital Cost</u> | <u>Whether (i) revenue- earning or (ii) expenditure-saving</u> | <u>Hypothetical Recurrent Cost</u> | <u>Remarks</u> |
|----------|---|--------------------------------------|--|--|---|
| 1 | Power Station | (b) 130,000 (c) 95,000 | Both | 20,000 | (a) already allocated to priority. (b) based on installation of 3 new diesel generators. (c) based on installation of 2 new diesel generators and retention of 2 old ones |
| 2 | Agriculture Advisory Service | 75,000 | | Depends on future pattern after 3 year life as capital project | Total £75,000 of which, on a CD&W basis, FIG's share would be £20,000 over three years. AID basis not known. |
| 3 | Hydatid Disease Eradication | 15,000 | Both | | Represents a hypothetical FIG contribution to a 5-year eradication campaign (£3,000 p.a.) |
| 4 | Airfield (including air/ground communica- tion channel) | £280,000 | No | 50 - 60,000 | Say, I.A.L. contract, £25,000. Add receiving and maintenance costs of all supporting services: say another £25,000 (see also Communications sub-committee's report) |
| 5 | Investment Projects | 65,000 | (i) | ? | It is assumed that government would only invest in revenue-earning projects. |
| 6 | Assisted Immigration | 25,000 | | | Hypothetical total of a 5 year programme at rate of £5,000 p.a. |
| 7 | Stanley Roads Programme | 200,000 | (ii) | Nil (a) | (a) is applicable if a continuing concreting programme is pursued. Under CD & W arrangements FIG contribution over 5 - 10 year period might be £40,000. |

20

| <u>Priority</u> | <u>Description</u> | <u>Hypothetical Capital Cost</u> | <u>Whether (i) revenue- earning or (ii) expenditure-saving</u> | <u>Hypothetical Recurrent Cost</u> | <u>Remarks</u> |
|-----------------|---|--------------------------------------|--|---|------------------------------------|
| 8 | Re-equipment of FIDF with 7.62 mm rifle | 7 - 10,000 | ?(ii) | As now, or at lower rate for, say 10 years | |
| 9 | Swimming Pool | 10,000 (a) | No | ? | (a) less amounts already collected |
| 10 | Telecommunications/ Broadcasting. (Camp Communications) | 25,000 | - | ? | |

(812 - 820,000)

Breakdown by sectors (listed alphabetically)

| <u>Sector</u> | <u>Projects</u> | <u>£</u> | <u>Percentage of approx. total of £800,</u> |
|--|--|----------------------|---|
| Agriculture | Agriculture Advisory Service | 75,000 | 9% |
| Communications | Airfield excl. associated air/ground communication channel; ^x Roads | 430,000 | 54% |
| Defence | Re-equipment of FIDF with NATO rifle | 10,000 | 1% |
| Industry and Power | Assisted immigration; Power Station | 220,000 ^y | 27% |
| Social Services | Hydatid Disease Campaign; Swimming Pool | 25,000 | 3% |
| Telecommunications ^x & Broadcasting | Camp Communications; air/ground communications associated with airfield | 65,000 | 8% |

y = S.P.E.D. has proposed 2 schemes, vide annexure 1. In view of the fatigue failure at the Power Station prospects for the cheaper scheme are less hopeful. Accordingly the estimate for the more expensive scheme has been included in the sector figure of £155,000

Anticipated Financial Resources

LOCAL

. £

Colony Resources

300,000

Annual contribution from recurrent surpluses

?

Annual contributions from other Colony sources

?

EXTERNAL

British AID Funds

WHO/FAO/UNICEF Funds (Hydatid Campaign; Agriculture Advisory Service)

Canadian Aid Funds (Airfield/Aviation projects)

U.S. AID funds (Telecommunications/Broadcasting; Swimming pool)

Australian aid funds (NATO rifle for F.I.D.F.)

W. German aid funds (Power Station)

DECODE.

TELEGRAM SENT.

CS

W
16/2
23

From GOVERNOR to SECRETARY OF STATE

Despatched: 16/2/70

Time:

Received:

Time

No. 36

RESTRICTED

Power Station generators.

Letter 2459 of 6th January from Jones to Sugg.

Would like to initiate specific request for assistance for project. Grateful therefore to receive your reaction to letter preferably by telegram.

Cypher : SJS

DECODE.

TELEGRAM SENT.

From SECRETARY OF STATE to GOVERNOR

Despatched: 16.2.70 Time: 2340 Received: 17.2.70 Time:

PRIORITY

p.14

NO 29. For Col Sec from Sugg your letters of 5 and 12 January development projects I am making enquiries with O.D.M. and will let you know results by telegram you may wish to consider discussing these projects with Braun during his visit

Stewart

P/L : ARA

Intld H.L.B.

17th February

70

Dear Sirs,

Extension and Automation of Stanley Power Station

We are giving consideration as a matter of priority to the possibility of replacing some of the original generating plant installed in the Stanley Power Station and automating it. The purpose of this letter is to give you the information we assume you will require to:-

- (a) Give a critical survey of the proposals we have in mind.
- (b) Obtain any counter proposals you may have.
- (c) Obtain through your offices quotations for plant, buildings etc. necessary to complete the project.

2. The present station as shown on drawing 'B' was completed early in 1951. The building is constructed of concrete block walls which support steel roof trusses spaced twelve feet apart, there are no buttresses or girder supports to the roof trusses.

3. The original machines are three Blackstone BPV6 150Kw. 600 rpm. diesel engines driving Crompton Parkinson alternators wound at 400/230 volts with a frequency of 50 cycles. These alternators feed, via 400 amp Crompton Klad 'A' OCBs. into a Crompton Parkinson switch and alternator control board. Outgoing feeders and the general arrangement is shown on drawing 'A'. In 1959-60 two Mirrlees TL6 Brush 196Kw. 400/440 volt 50 cycle sets were acquired locally and installed, their voltage control was modified to suit that of the original sets and they have operated successfully in parallel with them.

4. For some little time now consideration has been given to the replacement of the Blackstone sets due to the increases in electrical demand and the fact that these machines are showing increasing signs of wear as was evident recently by a fracture in a main cylinder housing.

5. Annual current output is 2.4 million units, increasing by 14.0% over the past ten years. Maximum and minimum demands are 650Kw. and 150Kw. respectively. The maximum is estimated to increase to 850Kw. within the next ten years with an average demand in the daytime of 700Kw. These figures would be exceeded if any major development took place.

6. Proposals. It will be seen from the layout on drawings 'A' and 'B' that there is no space for any additional generating set in the present station. It would not be practical to remove one or more of the Blackstones to give space and at the same time maintain continuity of supply during the installation period which may well be prolonged.

7./

7. An extension to the present building is proposed as shown in broken lines on drawing 'B'. Approach is from the north, the south and west sides are bounded by a quarry face and fuel storage tanks and on the east boundary there is an access road to the back of the station.

8. The proposed building extension might enclose the existing office shown at 5. and be constructed of the usual steel frames supporting similar roof trusses all sheathed in alloy. Space has been allowed for an additional 3rd set should this at some time be necessary either by removing the office at 5. or using the vacated space now taken by the Blackstones. Engine lifting beams would be necessary in line with the new sets and double entrance doors built in at the north end of the new extension sufficient in size to allow entry to the largest pieces of machinery.

9. The proposed new sets two in number would each be of 750 Kw. 400/230 volts 50 cycle diesels of 600 rpm. fully automatic, airmatic starting, synchronising, load sharing etc. etc. being completely self contained and automatic in every respect with radiator oil and water cooling.

10. The existing TL6 Mirrlees Brush 196 Kw. sets would be required to be automated to the same degree to bank up with the new sets. The station being entirely automatic, attended only during working daytimes for necessary maintenance. The existing distribution switchgear as shown on drawing 'A' may need some modification or replacement as a result of automating the plant.

11. A schedule giving type, numbers etc. of the existing plant are shown on the index to drawings 'A' and 'B'.

12. I trust that the enclosed details although concise are comprehensive enough to enable you to assist in this initial stage as requested at paragraph (a) - (c) of this letter. I look forward to receiving your comments and quotations.

Yours faithfully,

(Sgd) J. A. Jones

COLONIAL SECRETARY

To Crown Agents

Copies to: SPED
2459

S/C Pass file to HES for him to return for mention at Exco. of 2.3.70.

J. A. Jones

11th March,

70

To: Superintendent Power and
 From: Colonial Secretary. Electrical, Stanley

copies to C.T. & S.P.W.

New Power Station and Generators, Stanley

A recent confidential Circular Saving Despatch (No. 7/70 of 27.1.70) from the Foreign and Commonwealth Office advises us of the introduction, upon the termination of the C.D. & W. procedure, of a revised procedure for submission by dependent governments of project applications for British financial aid. A copy of the new form of application is attached hereto in triplicate.

*p. 7,
f. 2462*

*Spencer in
bottom frame of
Security cabinet.*

2. The Despatch states that it is recognised that there may be some difficulty in providing detailed cost/benefit analyses even for major projects but nevertheless asks for such quantitative information as is available with a broad assessment of the economic and social benefits. To ensure that delay in consideration of the first applications under the new procedure is minimised it is important that the best possible reply is made to each section of the application form: if there is doubt as to whether more or less information is required it would be preferable to supply too much. Best estimates of costs should be used if precise figures are available. Plans of works proposed should be the best available at the time the project is submitted. If information is not available as to, for example, the employment of consultants an indication of the present intention should be given.

3. I am sending you copies of the form of application to enable you, in advance of our receiving the reply from the Crown Agents to our recent request to them for further costing and technical data, to work on a first draft of the project application for the new Power Station and Generators. I imagine you will wish to do this to some extent in consultation with the Superintendent of Public Works. You may also wish to have some telephone or personal consultation with me.

17
 (J. A. Jones)
 Colonial Secretary.

JML

Copies to files 2462 and 1714

2459

28

DECODE.

TELEGRAM SENT.

From SECRETARY OF STATE to GOVERNOR

| | | | |
|-------------|-------|-----------|-------|
| Despatched: | Time: | Received: | Time: |
| 11.3.70 | 1915 | 12.3.70 | 11.00 |

PRIORITY GOVERNOR

NO. 41

For Col Sec from Sugg FI Telno 36 of 16/2 and FCO Telno 29 of 16/2 refer development projects.

Power Station generators proposal in your letter of 6th January is being considered by ODM we will keep you informed.

Telephone broadcasting system your letter of 12th January ODM would agree to an application under technical assistance arrangements provided FIG would be responsible for meeting experts local expenses for accommodation transport and requisite administrative and technical help please let me know if you wish application to go forward on this basis

STEWART

See 32

F/L CA
INTD JAJ

17th March,

70

Extension and Automation of
Stanley Power Station.

Your telegram no. 42 informing us that the power station proposal is being considered by the Ministry of Overseas Development reached here while Braun was still visiting us. I have discussed the project with him while he has been able also to discuss it with our Power and Electrical Superintendent and our Public Works Superintendent as well as having had the opportunity to see the relevant papers.

2. From discussion with Braun I understand that the material supplied to you in my letter of the 6th January read with further technical material supplied to the Crown Agents in my letter 1714 of the 17th February forms an adequate basis for consideration of the proposal but I am forwarding herewith, for the record, a completed Form for Project Application as an Annexure 'A' to your Confidential Circular Saving Dispatch No. 7/78 of the 27th January. The application form is forwarded in triplicate.

3. I have mentioned to Braun that there are some building works involved in the project the cost element of which is estimated at £10,000 or 10% of the total estimated cost for the project. The building works are an essential part of the project since there is no spare space in the present power station for additional installations. It would not be practical to remove one or more of the existing sets to provide the necessary space and at the same time maintain continuity of electricity supply during the installation period. This aspect of the matter is dealt with in paragraphs 4-8 of the letter to the Crown Agents referred to above.

(S. A. Jones)
Colonial Secretary.

A. St. J. Sugg, Esq., C.B.E.,
Foreign and Commonwealth Office,
LONDON S.W.1.

JUL

FORM FOR PROJECT APPLICATION

Administering Authority: Government of the Falkland Islands.
Serial No.

1. Name of Project. Extension to Stanley Power Station.
-
2. Location of the project and reasons for its choice. At existing Power Station site and the termination of the electrical distribution system.
-
3. Is the project included in the approved Development Plan and, if so, where? Yes. As Priority 1.
-
4. (a) Will the project be put out to tender? Equipment and materials will be purchased through the Crown Agents who may tender for specific items.
- (b) Name of Agency responsible for construction & operation. Crown Agents will be the purchasing Agency, the Falkland Islands Government Electrical and Public Works Departments will be responsible for overseeing construction and operation.
-
5. Professional advice on which the project is based. The Superintendent F.I.G. Electricity Department in collaboration with the Crown Agents to whom full specifications and proposals have been sent.
-
6. What are the benefits to be derived from the project?
- (a) Economic. (a) Sole supplier of electricity in Stanley with more than 80% of output purchased by commercial and public sector (including E.S.R.S., F.I.G. etc.) Output is at full capacity. Plant is obsolete and subject to failure. New equipment will provide increased output and sales and provide capacity for industrial development.
- (b) Social. (b) Electricity for light and heating in private homes and public places of entertainment in a sub-antarctic climate is essential. Age and state of present equipment prevents increased output and wider enjoyment of this amenity.

/continued.....

FORM FOR PROJECT APPLICATION

Extension to Stanley Power Station.

Continuation sheet 2.

7. (a) Total cost of the project (broken down into main items of expenditure)

| <u>Item.</u> | <u>Description</u> | <u>Cost</u> |
|--------------|---|-----------------|
| 1. | Two 750w. 415 volt. fully automatic, airstart starting, synchronising, load sharing, etc. etc. Diesel alternator sets being completely self-contained and automatic in every respect. | 75,000 |
| 2. | Steel framed building with sheathing including provision for lifting beams engine foundations, ducting, services and construction. | 10,000 |
| 3. | Automation of two existing 200 Kw. sets | 5,000 |
| 4. | Modifications to existing control. | 3,000 |
| 5. | Freight on materials | 3,000 |
| 6. | Attendance of Engineer during installation and commissioning. 90 days period. | 3,000 |
| 7. | Allow contingencies. | 1,000 |
| | TOTAL | <u>£100,000</u> |

(b) Amount of British Aid required. Total amount. £100,000

(c) In what U.K. financial years is British Aid required and how much each year?
April 1970 ending May 1972. £50,000
April 1970 May 1971 £50,000
April 1971 May 1972

8. When is the work expected to begin? As soon as approval from all sources is obtained and materials are available, estimated March of 1971.

File Ref. 2462
March, 1970
JML

DECODE.

TELEGRAM SENT.

From GOVERNOR to SECRETARY OF STATE

Despatched: 18.3.70 Time: 1445 Received: Time:

28
No. 53. Your telegram No. 41.

For Sugg from Jones. Development Projects.

736 in
0452/2
Position regarding power station project noted.
In my telegram No. 52 you have been informed this project
now allotted first priority.

Telephone broadcasting project under consideration
and do not expect to be in position notify you our wishes
for some time yet.

GOVERNOR'S DEPUTY

P/L : FA

Copies to: 0663; 2459; 2462.

19th March,

70

To: Superintendent of Public Works

From: Colonial Secretary

Stanley

(copy to C.S.)

Stanley Roads Concreting Programme

Owing to the necessity for us to give priority to the project for a new electricity power station as a call on British Development Aid funds, the amount of which over the next two years is technically adequate to cover the cost of that project only, the further phase of the roads concreting programme for which application was recently made to the British Government for G.S. & W. assistance, will have to remain in abeyance. There might be a slight possibility of reviving this second phase of the roads concreting project if it was found later this calendar year that expenditure on the power station project would not mop up the whole of this year's British allocation to us; but I put the possibility no higher than slight.

(J. A. Jones)
Colonial Secretary.

23rd March

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It may be useful to your ministry to have my current personal assessment of probable priorities of our calls on British development aid finance.

It is appreciated that the annual level of such aid for this Colony has been fixed at the figure of \$50,000 a year. However I assume that it may be supposed that within the British Aid programme as a whole there will be very considerable flexibility, apart from that which is inherent in it, resulting from some territories' allocations in any one year being considerably underexpended. A position could arise where further funds might become available to us and should such a situation arise it would presumably be to our mutual advantage if you already had an idea at least of my thinking on the subject of priorities. In due course I would hope to be able to inform you about definite decisions on this subject.

At present the view I put forward must necessarily be tentative for reasons of which you are already fully aware, for example, the fact that the Agriculture Advisory Team is not yet in a position to make a report on its investigations. As things appear at the present, after the power station project to which, as you are aware, the first priority has been firmly allotted, I would expect the following order of choice to emerge:

Priority 2: Follow up to Agriculture Advisory Team

Priority 3: Myxomatosis Disease Survey

Meanwhile it might also be as well for you to be advised of a project which, while its priority has of necessity to be rather lower in the list than any of the projects which I have mentioned, is nevertheless an important one since its final effect will be to save the colony considerable recurrent expenditure. This is the Stanley roads concreting programme, a phase of which is currently in hand and which, at an earlier stage in our local consideration of competing development needs, we had hoped might be able to be implemented phase by phase annually with the somewhat distant but nevertheless realistically attainable target of a complete concrete road system for Stanley in about seven years time. No-one will understand better than your Ministry that we do have to be careful over our priorities and while this project is undoubtedly worthwhile it cannot, as I have indicated, compete with the others which I have mentioned nor, possibly, with yet others of which I may advise you in due course. However, the opportunity to mop up unexpected spare resources in your overall programme might arise at a time when we could usefully employ funds of the order of \$20,000 for a further phase of the Stanley roads concreting programme. As I expect you know, work of this kind can only be undertaken in this climate in the spring and summer months, that is to say between November and April. This, I suppose, might be a difficulty in the circumstances which I have envisaged since November may perhaps be too early in your financial

financial/year

(It is requested that, in any reference to this letter, the above Number and date may be quoted.)

Dear Sirs,

Extension and Automation of
Stanley Power Station

Thank you for your letter of the 13th March. Your observations and proposals have received further study and after considering all of the information you have given the following comments and amended proposals are put forward as a basis for finalising the overall specifications for the project.

2. The plant would be fully automated and unattended for 16 hours over a 24 hour period with the exception of week-ends when it would be unattended for 44 hours. However should this extended period cause undue complications, a visit could be made at 16 hour intervals for minor works, e.g. replenishment of lubricating oil, possible re-setting of controls and visual inspection.

3. The purpose of specifying automatic operation is to effect a saving of £5,000 (less the cost of operation of automatic devices) a year on staff salaries. Should it be considered that the recurrent cost of this type of system will approach or exceed this figure then automation will not be economic and will not be adopted. Neither will it be adopted if you advise against it on the grounds of possible operating difficulties and maintenance. Under either of these circumstances the more standard safety alarms and controls only will be fitted.

4. Referring now to your observations on the type and capacity of the replacement plant. In view of the information that the T16 Mirreco 200 Kw. sets are no longer made, that there may be difficulty in automating them and of the possible difficulties in operating them in parallel with sets of the order of 750 Kw. capacity, we consider it might be advisable to replace the complete plant. This we believe would also simplify automatic operation and assist towards standardising all equipment.

5. We suggest the installation of fully automated sets manufactured by W.H. Allen. The capacities and types shown below have been taken from your letter and the machines identified from the catalogue "The British Diesel Engine" issued by the British Internal Combustion Engine Manufacturers Association. You will note that in our choice we have increased our overall capacity by 70% and with the combination selected should be able to exceed our present peaks with sufficient reserve for periods of overhaul of the largest machine and have an economical rating for periods of minimum demand. The machine types and capacities we propose are:-

- One - 681 Kw. 1,026 hp. at 600 r.p.m.
Single bank, turbo charged
type 6837-D. Engine.
- One - 456 Kw. 678 hp. at 600 r.p.m.
Single bank, normally aspirated,
type 6837-D. Engine.
- One - 312 Kw. 470 hp. at 500 r.p.m.
Single bank, normally aspirated,
type 5837-D. Engine.

All the machines quoted above are of the same type and it is assumed that their spares would be interchangeable.

6. The station supplies a general public and service load with an average overall power factor of 0.8 lagging. Loads worthy of special mention are induction motors up to 100 hp. and silicon rectifiers supplying a D.C. motor load to space research antennas. Automatic voltage and governor controls should be capable of maintaining stability to within the normally accepted limits for a public supply undertaking. Automatic frequency control to a time standard is desirable but if unduly costly should be omitted. Under present conditions frequency control is well maintained by hand using a pulsynetic controlled electric clock in circuit with a comparator dial, this system may possibly be incorporated in the new arrangement.

7. Switchgear will consist of alternator control panels with necessary automatically operated OCBs, and metering, over-riding hand control will also be provided. A separate distribution panel fed from the alternator panel will be required and should comprise:-

- One - 1,000 amp OCB.
- Two - 400 amp OCBs.
- Four - 300 amp fused switches.

8. Ammeters should be fitted to each of the OCBs, and one only to the combined fused switches. This distribution panel was not included in the original specification and it's inclusion is due to the assumption that all plant will be in the new wing. Provision of course should be made on both panels for possible future extensions.

9. The orientation of the new building wing to the north and south was planned in order to place the exhausts and cooling radiators out of sight to the west where there is rising ground. If the building ran east and west parallel with the existing buildings, the exhausts and radiators would need to be taken out on the north wall; this would necessarily be the front of the building and would tend to be unsightly. If machines of types and capacities now suggested are to be installed then the original layout will need amending accordingly to suit. Space will be left sufficient to accommodate one other machine, and as you suggest provision should be made for a maintenance bay to facilitate the use of a crane or lifting beam.

10. With regard to the observations in paragraph 4 of your letter concerning the installation date of the Miridon WEs., the drawing you noted was dated 1951. This was the date the original purchaser, (CDC) installed them on one of their projects here. We later acquired them and installed them in 1959-60.

11. We are currently awaiting confirmation from the Ministry of Overseas Development, to whom application has been made to finance the project, of their approval of it. Please arrange to copy to the Ministry correspondence between us up to the stage when implementation of the project is authorised and aid funds allocated to it by the Ministry. Meanwhile this letter is being copied to the Ministry for the attention of Mr D.H. Braun.

12. I would be pleased to receive any further comments you may have as a result of the amendments contained in this letter on our original proposals.

Yours faithfully,

(J. A. JONES)

COLONIAL SECRETARY

Copy to: ODM (for attention D.H. Braun)