

STATE ELECTRICITY COMMISSION OF VICTORIA

2 Copy to M/LRT - 12.10.62.

T-EXT.

DISTRIBUTION ENGINEER:

ELECTRICITY SUPPLY DEPARTMENT

Date 18th October, 1962.

To BRANCH MANAGER:

Subject-

BALLARAT TRAMWAY INQUIRY - OVERHEAD SYSTEM:

With regard to the above approaching inquiry, it is understood that the Engineer and Manager requires information as to Tramway Overhead costs under two headings -

- (a) Anticipated cost of normal upkeep and any special replacement items to maintain the existing overhead Trolley Wire System.
- (b) Capital cost of a complete new Overhead Trolley Wire System for the extended service as outlined, together with cost of any modification of Converter Plant and Feeder System which may be involved.

.....

With regard to (a), two of the three Rotary Converters at "A" Station, No.2 (500kW.) and No.3 (300kW.), are both regularly used for traction purposes, No.3 being used mainly for weekend loading. No.1 machine (500kW.) is used to supply the remaining 25 consumers on the D.C. reticulation. It is considered likely that all the D.C. consumers can be transferred to a single 150kW. Rectifier located in the City Area during the next twelve months. No.1 machine could then be modified for traction supply, and it is considered that these three machines would be adequate for loading and stand-by requirements for an indefinite period.

All three machines will require Commutator and Slip-Ring replacement within the next ten years, but with three machines available, this would not present any operating problem. The total cost of such Commutator and Slip-Ring replacement would be in the order of £2,500.

Supply is taken to the Overhead from the Converter Station, via. six Underground Cables of a total length of approximately 1,500 yards. This cable has been in service for approximately 30 years, and its replacement would have to be faced within a measurable time, which could be placed at 10 years. The cost of this cable replacement is estimated at £6,000.

Steel Standards - There are 54 of these Standards in the inner City Area supporting the Tramway Overhead, and these have been in service, also, for some 30 years. They have had considerable maintenance and restoration carried out on them, and it is considered their replacement will be required, with a similar design of steel pole, at the rate of 15 poles in the next five years, and the balance i.e. 39, in the second five years. £1,720 is estimated to be involved in the first period, and £4,480 for the second period - a total of £6,200.

Trolley Wire - Of the total length of 40,500 yards of Trolley Wire installed, some 16,000 yards, i.e. 40% has been replaced in the past 16 years. It is not anticipated that the Trolley Wire erected before this period will be good for more than 10 years, and it is estimated that the outlay for replacement spread, more or less, evenly over the 10 year period would be at least £15,000.