



1922.

THE PARLIAMENT OF THE COMMONWEALTH OF AUSTRALIA

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PARLIAMENTARY STANDING COMMITTEE

*of the Senate.  
3-10-22*

ON PUBLIC WORKS.

# REPORT

TOGETHER WITH

## MINUTES OF EVIDENCE

RELATING TO THE PROPOSED

### ESTABLISHMENT OF AUTOMATIC TELEPHONE EXCHANGES AT EAST SYDNEY, RANDWICK, WAVERLEY, AND GORDON, NEW SOUTH WALES.

MEMBERS OF THE PARLIAMENTARY STANDING COMMITTEE ON PUBLIC WORKS.

Third Committee.

The Honorable HENRY GREGORY, M.P., Chairman.

Senate.

Senator Hattil Spencer Poll.\*  
 Senator George Henderson †  
 Senator John Nowland, Vice-Chairman. † ‡  
 Senator Edward Needham §  
 Senator William Plain.\*

House of Representatives.

Llewelyn Atkinson, Esquire, M.P. †  
 The Honorable Frederick William Bamford, M.P.  
 David Sydney Jackson, Esquire, M.P. †  
 George Hugh Mackay, Esquire, M.P.  
 James Mathews, Esquire, M.P.  
 Parker John Moloney, Esquire, M.P.

\* Appointed 28th July, 1920. † Resigned 22nd July, 1920. ‡ Re-appointed 28th July, 1920.  
 ‡ Ceased to be a Member of the Senate, 30th June, 1920. † Resigned 12th May, 1921. † Appointed 10th May, 1921.

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LIST OF WITNESSES.

*John Edgar Supervising Engineer*  
 Crawford, John Murray, State Engineer for New South Wales, Postmaster-General's Department, Sydney  
 Goodwin, John Thomas Hill, Commonwealth Surveyor-General, Department of Home and Territories, Melbourne .. .. . 2  
 Oakshott, George James, Commonwealth Works Director for New South Wales, Sydney .. .. . 2, 5-11-18  
 Percival, William Kirby, Town Clerk, Municipality of Randwick, New South Wales .. .. . 7

EXTRACT FROM VOTES AND PROCEEDINGS OF THE HOUSE OF REPRESENTATIVES.

No. 204 of 6th DECEMBER, 1921.

22. PUBLIC WORKS COMMITTEE—REFERENCE OF WORKS—NEW TELEPHONE EXCHANGES, ETC., EAST SYDNEY, CITY SOUTH, SYDNEY, RANDWICK, WAVERLEY, AND GORDON.—Mr. Groom moved, pursuant to notice, That, in accordance with the provisions of the Commonwealth Public Works Committee Act 1913-1914, the following works be referred to the Parliamentary Standing Committee on Public Works for its investigation and report thereon, viz.:—New Telephone Exchanges and Automatic Equipment at the following places in New South Wales, East Sydney (Paddington and William); City South, Sydney; Randwick, Waverley, and Gordon.

Mr. Groom having laid on the Table plans, &c., in connexion with the proposed works.

Question—put and passed.

PARLIAMENTARY STANDING COMMITTEE ON PUBLIC WORKS.

AUTOMATIC TELEPHONE EXCHANGES, EAST SYDNEY,  
RANDWICK, WAVERLEY, AND GORDON, NEW  
SOUTH WALES.

R E P O R T.

The Parliamentary Standing Committee on Public Works, to which the House of Representatives referred for investigation and report the question of the establishment of new telephone exchanges and automatic equipment at the following places in New South Wales, viz. :—East Sydney (Paddington and William) ; City South, Sydney ; Randwick, Waverley, and Gordon ; has the honour to report as follows :—

INTRODUCTORY.

1. There are at present in the Sydney Metropolitan Area 30 telephone exchanges, 12 of which are automatic exchanges and 18 are manually operated.
2. It is admitted that the telephone service in Sydney is not as good as it should be, but it is stated that the defects are, to a large extent, caused by the existence of the mixed system of automatic and manually-operated exchanges. It is claimed that the automatic to automatic service is more satisfactory from the view point both of the subscriber and of the Department than service between automatic and manual, and the evidence discloses that when the present transition period has passed a much more efficient service will be provided.

PROPOSALS BEFORE THE COMMITTEE.

3. The proposals now under consideration are :—

(a) EAST SYDNEY.

To erect a new building on a site at the corner of Liverpool and Little Surrey streets, and to install therein an automatic telephone switching system having an immediate equipment of 5,100 subscribers' lines and an ultimate capacity of approximately 8,500 subscribers' lines.

Estimated Cost.

4. The estimated immediate cost of the proposal as submitted to the Committee is :—

|   | £       |
|---|---------|
| Site .. .. .  | 4,000   |
| Building .. .. .  | 13,000  |
| Air Conditioning Plant .. .. .  | 5,500   |
| Exchange equipment, including that necessary at other exchanges .. .. . | 122,186 |
| Sub-station equipment .. .. .   | 33,353  |
| Line Plant .. .. .  | 21,823  |
| Cost of Cut-over .. .. .  | 31      |

199,883

*Capa* / *Committee's investigations* . o

Site.

5. The site suggested for the exchange of City East has been acquired by the Commonwealth, and according to the evidence placed before the Committee it would appear that the site is conveniently situated and the price paid not unreasonable.

*Building.*

6. The plans provide for a two-storied building of reinforced concrete, faced with brick, with reinforced concrete floors, tiled roof, and a staircase but no lift. d/

In the opinion of the Committee this building has been carefully and economically designed, and will prove satisfactory for the purpose for which it is intended.

*Financial Aspect.*

7. The estimated annual total charges and revenue under the proposed automatic system or under an alternative common battery system, as at date of cut-over and five years later, would be as follows:— b/c/

|   | As at date of<br>Cut-over. |    | Five years after<br>Cut-over. |
|---|----------------------------|----|-------------------------------|
|   | £                          |    | £                             |
| Total annual charges for proposed automatic system ..                         | 35,954                     | .. | 40,676                        |
| Estimated annual revenue .. .. .  | 53,621                     | .. | 73,604                        |
| Total annual charges under an alternative common<br>battery system .. .. .    | 42,858                     | .. | 48,941                        |
| Annual charges in favour of establishing an automatic<br>system .. .. .       | 6,904                      | .. | 8,265                         |
| In addition the assets thrown spare will have a recoverable value of £25,579. |                            |    |                               |

## COMMITTEE'S DECISION.

8. Under these circumstances the Committee considers the provision of an automatic telephone exchange at East Sydney is a good business proposition, and unanimously agreed to recommend that its installation be put in hand as early as possible.

*(b) RANDWICK.*

9. To make necessary alterations and additions to the existing manual telephone exchange building in Avoca-street, Randwick, and to install therein, in lieu of the existing non-multiple magneto switchboard, an automatic telephone switching system having an immediate equipment of 4,900 subscribers' lines and an ultimate capacity of approximately 6,500 subscribers' lines.

*Estimated Cost.*

10. The estimated immediate cost of the proposal as submitted to the Committee is:—

|   |         |
|---|---------|
| Site .. .. .  | 307     |
| Building .. .. .  | 2,400   |
| Air Conditioning Plant .. .. .                                  | 3,500   |
| Exchange equipment, including that necessary at other exchanges | 108,834 |
| Sub-station equipment .. .. .                                   | 20,857  |
| Line Plant .. .. .  | 575     |
|   | 136,473 |

## COMMITTEE'S INVESTIGATIONS.

11. The Committee visited Sydney and inspected the existing manual exchange at Randwick as well as the area which would be served by the new exchange.

*Building.*

12. No new building is proposed, but the existing building on the site will be altered and added to to meet requirements.

*Financial Aspect.*

13. The estimated total annual charges and revenue under the proposed automatic system or under an alternative common battery system, as at date of cut-over and five years later, would be as follows:—

|  | As at date of<br>Cut-over. |    | Five years after<br>Cut-over. |
|--|----------------------------|----|-------------------------------|
|  | £                          |    | £                             |
| Total annual charges for proposed automatic system ..                      | 27,884                     | .. | 34,076                        |
| Estimated annual revenue .. .. .   | 28,310                     | .. | 48,673                        |
| Total annual charges under an alternative common<br>battery system .. .. . | 32,186                     | .. | 40,301                        |
| Annual charges in favour of establishing an automatic<br>system .. .. .    | 4,302                      | .. | 6,225                         |

In addition the assets thrown spare have a recoverable value of £13,046.

v

**COMMITTEE'S DECISION.**

14. Under these circumstances the Committee considers the provision of an automatic telephone exchange at Randwick is a good business proposition, and unanimously agreed to recommend that its installation be put in hand as early as possible.

(c) **WAVERLEY.**

15. To erect a new telephone exchange building on Commonwealth property at the corner of Cowper and Birrell streets, Waverley, and to install therein an automatic telephone switching system having an immediate equipment of 3,200 subscribers' lines and an ultimate capacity of approximately 4,500 subscribers' lines.

*Estimated Cost.*

16. The estimated immediate cost of the proposal as submitted to the Committee is:—

|   | £      |
|---|--------|
| Site .. .. .  | 900    |
| Building .. .. .  | 4,515  |
| Air Conditioning Plant .. .. .                                  | 3,500  |
| Exchange equipment, including that necessary at other exchanges | 70,483 |
| Sub-station equipment .. .. .                                   | 16,379 |
| Line Plant .. .. .  | 410    |
|   | 96,187 |

**COMMITTEE'S INVESTIGATIONS.**

17. The Committee visited Sydney and inspected the existing manual exchange at Waverley as well as the site suggested and the area which would be served by the new exchange.

*Site.*

18. It is suggested that the proposed exchange should be located on certain land at the corner of Cowper and Birrell streets, the property of the Commonwealth and formerly occupied by the Waverley Post Office.

*Building.*

19. At Waverley no new building is proposed, but the existing building on the site will be altered and added to, to meet requirements.

20. In the course of its investigations the Committee ascertained that the whole of the building now standing at Waverley is not likely to be required for telephone exchange purposes and that the spare portion is unlikely to be required for any other Commonwealth purposes. If this be so, and adequate precautions can be taken against fire, the Committee is of opinion that the Government might with advantage dispose of the land and building not required.

*Financial Aspect.*

21. The estimated total annual charges and revenue under the proposed automatic system, or under an alternative common battery system, as at date of cut-over of the system and five years later, would be as follows:—

|  | As at date of<br>Cut-over. | Five years after<br>Cut-over. |
|--|----------------------------|-------------------------------|
|  | £                          | £                             |
| Total annual charges for proposed automatic system ..                      | 20,056                     | 22,371                        |
| Estimated annual revenue .. .. .   | 22,582                     | 31,080                        |
| Total annual charges under an alternative common<br>battery system .. .. . | 22,691                     | 26,164                        |
| Annual charges in favour of establishing an automatic<br>system .. .. .    | 2,635                      | 3,793                         |

In addition the assets thrown spare have a recoverable value of £15,122.

**COMMITTEE'S DECISION.**

22. Under these circumstances the Committee considers the provision of an automatic telephone exchange at Waverley is a good business proposition, and unanimously agreed to recommend that its installation be put in hand as early as possible.

## (d) GORDON.

23. To erect a new telephone exchange building on a site which has been acquired for the purpose at the corner of Powell-street and Lane-Cove-road, and to install therein an automatic telephone switching system having an immediate equipment of 3,200 subscribers' lines and an ultimate capacity of approximately 4,500 subscribers' lines.

*Estimated Cost.*

24. The estimated immediate cost of the proposal as submitted to the Committee is:—

|   |        |
|---|--------|
|   | £      |
| Site .. .. .  | 450    |
| Building .. .. .  | 3,730  |
| Air Conditioning Plant .. .. .                                  | 3,100  |
| Exchange equipment, including that necessary at other exchanges | 36,686 |
| Sub-station equipment .. .. .                                   | 1,992  |
| Line Plant .. .. .  | 18,945 |
| Cost of cut-over .. .. .  | 6      |
|   | 64,909 |

## COMMITTEE'S INVESTIGATIONS.

25. An inspection was made of the site suggested for the proposed new exchange and the area which would be served. X

*Site.*

26. The site has been acquired by the Commonwealth, and according to the evidence placed before the Committee it would appear that such site is conveniently situated and the price paid is not unreasonable.

*Building.*

27. The building is to be a one-storied brick structure with tiled roof and reinforced concrete floors. In the opinion of the Committee the building proposed is suitable for the purpose and locality it is intended to serve and designed with due regard to economy.

*Financial Aspect.*

28. The estimated total annual charges and revenue under the proposed automatic system or under an alternative common battery system, as at date of cut-over and five years later, would be as follows:—

|  | As at date of<br>Cut-over. | Five years after<br>Cut-over. |
|--|----------------------------|-------------------------------|
|  | £                          | £                             |
| Total annual charges for proposed automatic system ..                      | 11,032                     | 12,329                        |
| Estimated annual revenue .. .. .   | 10,876                     | 16,293                        |
| Total annual charges under an alternative common<br>battery system .. .. . | 13,244                     | 15,109                        |
| Annual charges in favour of establishing an automatic<br>system .. .. .    | 2,212                      | 2,780                         |

In addition the assets thrown spare have a recoverable value of £5,202.

## COMMITTEE'S DECISION.

29. Under these circumstances the Committee considers the provision of an automatic telephone exchange at Gordon is a good business proposition, and unanimously agreed to recommend that its installation be put in hand as early as possible.

## (e) CITY SOUTH.

30. Since this reference was submitted to the Committee the site selected for the proposed exchange has been sold, and is not now available for Commonwealth purposes. This involves a modification of the original scheme, and in consequence the proposed establishment of this exchange will form the subject of a separate report.

*J. Newland*  
J. NEWLAND,  
Vice-Chairman.

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EAST SYDNEY AUTOMATIC  
EXCHANGE.

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# MINUTES OF EVIDENCE.

(Taken at Sydney.)

MONDAY, 8th MAY, 1922.

Present :

Mr. GREGORY, Chairman;

|                 |              |
|-----------------|--------------|
| Senator Foll    | Mr. Bamford  |
| Senator Newland | Mr. Jackson  |
| Senator Plain   | Mr. Mathews. |

John Murray Crawford, State Engineer, Postmaster-General's Department, New South Wales, sworn and examined.

1. To the Chairman.—We propose to install a new automatic exchange, to be called East Exchange, to serve telephone subscribers in the present William and Paddington Exchange areas. The proposed exchange will replace the existing William and Paddington Exchanges; it will have equipment for 5,100 lines at the date of opening, and an ultimate capacity of approximately 8,500 lines. The reasons for submitting this proposal are as follows:—(i.) The Sydney City Council desires to acquire the site on which the William-street Post-office is erected, and in which the telephone switching equipment is installed, in order to permit of the widening of William-street. It is, therefore, necessary to acquire a new site and to erect a new exchange building in which to install new switching equipment; (ii.) the equipment at present installed in the William Exchange building is of old manual magneto type, which is unsuitable for the needs of a large exchange area; (iii.) the William Exchange room is congested with equipment, and no further switchboard accommodation can be given in present room; (iv.) the equipment at the Paddington Exchange is obsolescent for a large exchange area, and is altogether unsuitable for the requirements of telephone subscribers—it is of magneto pattern, of an even older type than William Exchange; (v.) As new buildings and equipment are urgently required for the William and Paddington Exchanges, it is estimated that it would be more economical to combine William and Paddington Exchanges, using one exchange building for both; (vi.) the present Paddington Exchange is over 1,200 yards distant from the copper centre of the exchange area. It is proposed to erect an exchange building to house automatic switching equipment and associated apparatus on a site at the corner of Liverpool and Surrey streets, close to the corner of Liverpool and Victoria streets. The site proposed is 122 feet deep, with a frontage to Liverpool-street of 65 feet approximately. Natural lighting will be afforded on all sides. The cost is £1,800 for the originally proposed width of 45 feet, but adding the additional 20-ft strip, this will be increased by £1,500, which, together with £4,000 for compensation for dispossessed tenants and demolished property, will make the total cost of the site £7,300. Upon this site it is proposed to erect a two-storied building of simple design at an estimated cost of £13,000. The design of the proposed building is such that the estimated requirements of the East Exchange area will be met for approximately eighteen years without any extensive structural alteration or additions. The total capital cost of the proposed Automatic Exchange is £203,183, made up as follows:—Site, £7,300; building, £13,000; air conditioning, heating, ventilating, vacuum cleaning, and air-compression plant, £5,500; exchange equipment, including that necessary at other exchanges, £122,186; substation equipment, £33,363; line plant (conduits, cables, and open lines), £21,823; cost of

F.13992.

cut-over of exchange equipment, £21; total, £203,183. The revenue derived, and the revenue it is estimated will be obtained on the date of transfer, viz., 30th June, 1923, and with five years' development, is shown hereunder:—

| Exchange.     | Average number of lines connected during 1919-20. | Annual Revenue 1919-20. | Estimated number of Subscribers' lines, 30.6.23. | Estimated Annual Revenue 30.6.23. | Estimated number of Subscribers' lines 30.6.28. | Estimated Annual Revenue 30.6.28. |
|---------------|---|-------------------------|--|-----------------------------------|---|-----------------------------------|
| William ..    | 1,373   | 17,015                  | 2,400  | 37,175                            | 3,200   | 49,567                            |
| Paddington .. | 925   | 9,360                   | 1,300  | 16,446                            | 1,900   | 24,037                            |
| Total ..      | 2,298   | 26,375                  | 3,700  | 53,621                            | 5,100   | 73,604                            |

A feature of the present William Exchange area is the large number of high-class building flats erected or in course of construction. Many of these building flats are equipped for telephone service for each suite of rooms. For example, the Hampton Court flats now in course of erection are being equipped for 64 telephone lines. The extension of the flat system of housing has a large bearing on the high rate of telephone development at William Exchange. The financial aspect of the proposal is disclosed by the following summary:—

|   | At date of Cut-over. | Five years after Cut-over. |
|---|----------------------|----------------------------|
|   | £                    | £                          |
| Capital cost—new .. .. .  | 203,183              | 215,735                    |
| Capital cost—new and in situ .. .. .  | 369,108              | 278,707                    |
| Estimated annual working expenses of existing manual systems .. .. .                  | 14,652               | ..                         |
| Annual revenue—   |                      |                            |
| Actual, 1919-20 .. .. .   | 26,375               | ..                         |
| Estimated .. .. .   | 53,621               | 73,604                     |
| Estimated annual working expenses of proposed automatic system .. .. .                | 9,990                | 12,468                     |
| Estimated total annual charges for proposed automatic system .. .. .                  | 36,110               | 40,841                     |
| Estimated annual working expenses of alternative common battery manual system .. .. . | 18,641               | 22,609                     |
| Estimated total annual charges for alternative common battery manual system .. .. .   | 43,023               | 49,106                     |
| Recoverable assets or thrown spare if automatic exchange installed 30th June, 1923—   |                      |                            |
| (i.) Book value .. .. .   | 47,516               | ..                         |
| (ii.) Recoverable value .. .. .   | 25,870               | ..                         |
| (iii.) Cost of recovery .. .. .   | 1,430                | ..                         |
| Difference in annual charges in favour of establishing an automatic system .. .. .    | 6,904                | 8,268                      |

Regarding item 9 of the foregoing statement, the difference between sub-items (i.) and (ii.), viz., £21,937, is an amount which will have to be written off in the departmental accounts as representing the proportion of the capital outlay on the original asset which is irrecoverable, and is made up as follows:—(a) Exchange equipment, £5,110; (b) substation equipment, £14,827; (c) line plant, £1,000; total, £21,937. The amounts shown for (a) and (b) represent ordinary depreciation due to wear and tear on equipment, most of which is now practically obsolete. The amount shown for (c) represents depreciation of line plant which will be thrown spare. As it is necessary that the existing equipment be replaced by more up-to-date apparatus, the total amount shown above, viz., £21,937, would have to be written off whether an automatic or a modern manual system were installed. The building proposed is to be of two stories, but no doubt the foundations would carry another story if the extension of the exchange beyond



the estimated ultimate capacity of 8,500 subscribers becomes necessary. The practice of all telephone administration is to look ahead for fifteen years. Beyond that period, all estimates are in the nature of prophecy. It is a question of whether it is better to make provision for an indefinite number of years and allow the money to lie idle until the whole of the building is required, or to defer the extra expenditure until we are in a position to know more about the density of distribution throughout the area in fifteen or eighteen years time. If the Victoria barracks are demolished, and the area they occupy is made available for other purposes, the telephone centre will be pulled more towards that direction, and it might be better to erect another telephone exchange thereabouts, rather than erect a three-storied building to cater for anticipated requirements that may never materialize. At the present time there are twelve automatic exchanges in and about Sydney, and the subscribers attached to any one of them can ring up any of the others. Although there are only a limited number of letters and figures on the dial, they can be worked in combination to cover as many exchanges as may be in the network. For instance, Ashfield is the main exchange for Burwood, Parramatta, and Homebush. Homebush is the switching exchange for the local calls for a satellite exchange at Lidcombe; so the one letter on the dial calls up Ashfield, Burwood, Parramatta, Homebush, and Lidcombe. Of course we allow a different initial number to each of these exchanges. There is no limit to the network of exchanges that will be accessible to any automatic subscriber. We have now what is called a five-figure system, "99999," which is equal to 100,000. By adding another number we can bring the network up to 1,000,000 lines. We are proposing in connexion with the Lidcombe satellite exchange an additional number. As we increase the size of the network beyond five figures we add to the cost, and that is why we are reluctant to increase other than satellite exchanges beyond five figures. A two-storied building will be required for this exchange, notwithstanding that the ultimate capacity will be only 5,000 subscribers. On the ground floor there will be the frame room, air-conditioning room, battery room, luncheon room, and lavatory. On the first floor will be situated the switching apparatus proper. Although the site has a frontage of 65 feet, I would have been satisfied with 40 feet. The Department for Works and Railways I believe insisted on our having the full frontage of 65 feet, which meant the acquisition of the adjoining property with a frontage of 19 ft. 7 in., and the demolition of the buildings upon it. The larger site will provide a passage way and light on four sides of the building. The accommodation proposed will be sufficient for the estimated requirements for fifteen years and a little over. The plans now before the Committee are only tentative, but they are satisfactory to our Department.

2. *To Senator Newland.*—I asked for a block of land with a frontage of 45 feet on the corner of Liverpool and Little Surrey streets, but the Works Department insisted on our having a light area on the eastern side, and it is proposed to acquire an additional 19 ft. 7 in., at a cost of £1,500, plus an estimated amount of £4,000 for compensation of the dispossessed tenants. The Works Department has to purchase the full 19 ft. 7 in., that being the width of the next property, or be satisfied with the 45 feet of corner block. I would have been content to do without this additional light area. The building will be only 45 feet wide, and we must use artificial light in any circumstances. There is not much advantage in having a light area on all sides, except that the fire risk may be diminished. We proposed to put the air-conditioning plant partly underneath the rear of the building, but the Works Department is making provision for it on the ground floor at the rear of the frame room. That is one advantage we shall get from the additional area. I do not think there is any

objection to the lavatory accommodation being in the front of the building; the premises will be used only by the employees.

3. *To the Chairman.*—The fire risk would be reduced if a parapet wall were substituted for the overhanging eave on the eastern side of the building. We are paying £124 per ton for copper wire from Port Kembla; the price is averaged at £15 to £17 per ton above the market price of copper. Electrolytic copper to-day is worth about £64 per ton.

(Taken at Sydney.)

TUESDAY, 9TH MAY, 1922.

Present:

|                        |                     |
|------------------------|---------------------|
| Mr. GREGORY, Chairman; |                     |
| Senator Newland        | Mr. Mathews         |
| Mr. Bamford            | Mr. Parker Moloney. |
| Mr. Jackson            |                     |

George John Oakshott, Commonwealth Works Director for New South Wales, sworn and examined.

4. *To the Chairman.*—We are proposing for the automatic exchange building in East Sydney a two-storied building, without any provision for additional stories. The plans have been carefully gone into with the Postal Department, and so far as I know the building will meet the estimated requirements for the next ten years. The building is to be of reinforced concrete, faced with brick, with reinforced concrete floors, tiled roof, and a staircase, but no lift. The estimated cost of the building alone is £13,000. There is very little risk of fire from adjoining premises, but there is a greater danger with overhanging eaves than with a parapet wall. I agree that as expensive machinery is to be installed in this building, it is not desirable to have overhanging eaves. On the Liverpool-street frontage the exchange will be 100 feet from the nearest building; there will be a 20-ft. right-of-way at the back, Little Surrey-street will be on the east, and on the west side there will be a space of about 9 feet between the exchange and the nearest building.

(Taken at Melbourne.)

TUESDAY, 18TH JULY, 1922.

Present:

|                                |                     |
|--------------------------------|---------------------|
| Senator NEWLAND, in the Chair; |                     |
| Senator Foll                   | Mr. Mathews         |
| Senator Plain                  | Mr. Parker Moloney. |
| Mr. Mackay                     |                     |

John Thomas Hill Goodwin, Commonwealth Surveyor-General, sworn and examined.

5. *To Senator Newland.*—The site for the City East Telephone Exchange was acquired on the 20th April 1922. It faces Liverpool-street and Little Surrey-street. It has a frontage of 64 feet to Liverpool-street by a depth, roughly, of 123 feet. We have not paid for it yet, and have not received all the claims. The only lessee who is entitled to any compensation is the lessee of the shop at 332 Liverpool-street. The lease has about two years to run, and the rent is £104 per annum. He is now a tenant of the Commonwealth on a monthly basis. The acquisition cancels the lease, and its value is converted into a claim for compensation. The lease will expire in June, 1924, and, at the present rate, it will be another year before the Commonwealth is ready to disturb him. I have not dealt with any of the claims for compensation. I have not seen the plans for the building. In round figures, the cost of the land, including

compensation and everything, will not exceed £4,000. I do not think it will cost that sum. The Commonwealth may have to go to law. Only one claim has been received up to the present, and it is for more than I am prepared to recommend the Minister to pay. To say that we shall have to pay £4,000 as compensation to tenants is absolutely absurd.

(Taken at Melbourne.)

TUESDAY, 8TH AUGUST, 1922.

Present:

Senator NEWLAND, in the Chair;  
 Senator Plain                      Mr. Mathews  
 Mr. Bamford                      Mr. Parker Moloney.  
 Mr. Mackay

Edgar Becher, Supervising Engineer, Central Office, Postmaster-General's Department, sworn and examined.

6. To Senator Newland.—The Surveyor-General advised the Postmaster-General's Department that the costs of the two pieces of land for the erection of the City East Automatic Telephone Exchange, were, respectively, £1,800 and £1,500. His letter concluded by saying that it was estimated that a sum of £4,000 would be required to compensate the owners and lessees concerned. That was interpreted by myself to mean that we would need £4,000 for compensation alone—that is to say, in addition to the £1,800 and £1,500, making £7,300. I recently ascertained, however, from the Surveyor-General's Department that I was in error in my interpretation of the letter, and that what was meant was that we would need to pay only £4,000 in all for the two pieces of land. The proposal for establishing an automatic exchange at East Sydney is to erect a telephone exchange building on a site at the corner of Liverpool and Little Surrey streets, Darlinghurst, which has been acquired by the Commonwealth, and to install therein an automatic telephone switching system, having an immediate equipment of 5,100 subscribers' lines and an ultimate capacity of approximately 8,500 subscribers' lines. It is proposed that the initial equipment shall be capable of extension to the ultimate capacity named, thereby affording sufficient accommodation for the anticipated development in the proposed east automatic exchange area. The subscribers in the proposed area are at present connected to two separate manual exchanges, viz., William and Paddington. In consequence of the intention of the City Council, Sydney, to resume the site of the present exchange at William, it was necessary to consider the establishment of a new exchange thereat, but it was found to be a more economical proposition to include Paddington, and serve the combined area from one automatic telephone exchange. The switchboard equipment in both exchanges is of the magneto manual type, and is unsuitable for a large telephone network such as exists in the Sydney metropolitan area. The estimated immediate cost of the work is:—

|   |                 |       |
|---|-----------------|-------|
| Site .....  | £               | 4,000 |
| Building .....  | 13,000          |       |
| Air conditioning, heating, ventilating, vacuum cleaning and air compression plant ..... | 5,500           |       |
| Exchange equipment, including that necessary at exchanges .....                         | 122,186         |       |
| Sub-station equipment .....   | 33,353          |       |
| Line plan (conduits, cables and open lines) .....                                       | 21,822          |       |
| Cost of cut-over of exchange equipment .....  | 21              |       |
|   | <u>£199,883</u> |       |

The revenue derived and the revenue it is estimated will be obtained on the date of transfer, viz., 30th June, 1923, and with five years' development, is shown hereunder—

| Exchange.     | Average No. of Lines connected during 1919-20. | Annual Revenue received 1919-20. | Estimated No. of Subscribers June, 30, 1923. | Estimated Annual Revenue, 30.6.23. | Estimated No. of Subscribers June, 30, 1928. | Estimated Annual Revenue, 30.6.28. |
|---------------|--|----------------------------------|--|------------------------------------|--|------------------------------------|
| William ..    | 1,373  | £ 17,015                         | 2,400  | £ 37,175                           | 3,200  | £ 49,587                           |
| Paddington .. | 925  | 9,500                            | 1,300  | 16,446                             | 1,900  | 24,037                             |
| Totals ..     | 2,298  | 26,375                           | 3,700  | 53,621                             | 5,100  | 73,624                             |

It is proposed that the building shall be of simple design and built on the latest fire-resisting principles. The immediate installation in the exchange is for an equipment of 5,100 subscribers' lines, but it is proposed that the building be designed sufficiently large to accommodate an equipment having a capacity of approximately 8,500 subscribers' lines.

|  | £       | Five years after Cut-over. |
|--|---------|----------------------------|
| 1. Capital cost—new .....  | 109,883 | 212,432                    |
| 2. Capital cost—new and in situ .....  | 262,858 | 275,407                    |
| 3. Estimated annual working expenses of existing manual systems as at 30.6.21 .....                  | 14,652  |                            |
| 4. Annual revenue—Actual, 1919-20 .....  | 26,375  |                            |
| Estimated, 30.6.23 .....   | 53,621  |                            |
| " 30.6.28 .....  | 73,604  | 73,604                     |
| 5. Estimated annual working expenses of proposed automatic system as at 30.6.23 .....                | 9,990   | 12,462                     |
| 6. Estimated total annual charges for proposed automatic system as at 30.6.23 .....                  | 35,954  | 40,676                     |
| 7. Estimated annual working expenses of alternative common battery manual system as at 30.6.23 ..... | 18,641  | 22,602                     |
| 8. Estimated total annual charges for alternative common battery manual system as at 30.6.23 .....   | 42,858  | 48,941                     |
| 9. Recoverable assets or thrown spare if automatic exchange installed 30.6.23—                       |         |                            |
| (i) Book value .....   | 47,516  |                            |
| (ii) Recoverable value .....   | 25,578  |                            |
| (iii) Cost of recovery .....   | 1,430   |                            |
| Difference in annual charges in favour of establishing an automatic system .....                     | 6,904   | 8,265                      |

Regarding item 9 of the foregoing statement, the difference between sub-items (i) and (ii), viz., £21,937, is an amount which will have to be written off in the departmental accounts as representing the proportion of the capital outlay on the original asset which is irrecoverable and is made up as follows:—

|                                 |                |
|---------------------------------|----------------|
| (a) Exchange equipment .....    | £ 6,110        |
| (b) Sub-station equipment ..... | 14,827         |
| (c) Line plant .....            | 1,000          |
|                                 | <u>£21,937</u> |

The amounts shown for (a) and (b) represent ordinary depreciation due to wear and tear on equipment, most of which is now practically obsolete. The amount shown for (c) represents depreciation of line plant which will be thrown spare. As it is necessary that the existing equipment be replaced by more up-to-date apparatus, the total amount shown above, viz., £21,937, would have to be written off whether an automatic or a modern manual system be installed.

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**RANDWICK AUTOMATIC EXCHANGE.**

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(Taken at Sydney.)

MONDAY, 8TH MAY, 1922.

Present :

- Mr. GREGORY, Chairman;  
 Senator Foll                      Mr. Bamford  
 Senator Newland                Mr. Jackson  
 Senator Plain                    Mr. Mathews.
- John Murray Crawford, State Engineer, Postmaster-General's Department, New South Wales, sworn and examined.

1. To the Chairman.—We are proposing to make alterations and additions to the present telephone exchange building, which is situated in Avoca-street, Randwick, and to install therein an automatic telephone switching system, having an immediate equipment of 4,900 subscribers' lines, and an ultimate capacity of approximately 6,500 subscribers' lines. It is proposed that the initial equipment shall be capable of extension to the ultimate capacity named, thereby affording sufficient accommodation for the anticipated development in the proposed Randwick automatic exchange area. The subscribers in the proposed area are served by a non-multiple manual magneto switch-board, installed in the Randwick Exchange. In a multi-exchange network such as obtains in the Sydney metropolitan area, the continuance of such a system would not be in the interests of the efficiency of the service throughout the network as a whole. The installation of automatic equipment would be a definite step towards increasing the general efficiency of the network, and would allow of improved service being rendered to subscribers connected with the Randwick Exchange. The estimated immediate cost of the work is:—Site (already acquired), £307; building (alterations and additions), £2,400; air-conditioning, heating, ventilating, vacuum cleaning, and air-compression plant, £3,500; exchange equipment (including that necessary at other exchanges) and cost of cut-over, £108,834; sub-station equipment, £20,857; line plant (external), £575; total, £139,473. The annual revenue derived now and estimated to be obtained on the date of transfer, viz., 30th September, 1923, and with five years' development, is shown hereunder:—

| Average Number of Lines connected during Year ended 31.12.20. | Revenue Received for the Year ended 31.12.20. | Estimated Number of Subscribers' Lines, 30.9.23. | Estimated Annual Revenue, 30.9.23. | Estimated Number of Subscribers' Lines, 30.9.28. | Estimated Annual Revenue, 30.9.28. |
|---|---|--|------------------------------------|--|------------------------------------|
| 1,952   | £ 16,474                                      | 2,850  | £ 28,310                           | 4,900  | £ 48,673                           |

It is proposed that the building shall be of simple design, and built on the latest fire-resisting principles. The immediate installation in the exchange is for an equipment of 4,900 subscribers' lines, but it is proposed that the building shall be designed sufficiently large to accommodate an equipment having a capacity of approximately 6,500 subscribers' lines. The financial aspect of the proposal is summarized as follows:—

|   | At Date of Cut-over. | Five years after Cut-over. |
|---|----------------------|----------------------------|
| Capital cost—new .. .. .                                  | £ 139,473            | £ 161,333                  |
| Capital cost—new and <i>in situ</i> .. .. .               | 225,700              | 240,560                    |
| Annual working expenses of existing manual system .. .. . | 10,407               | ..                         |
| Annual revenue—   |                      |                            |
| Actual as at 31st December, 1920 .. .. .                  | 16,474               | ..                         |
| Estimated .. .. .   | 28,310               | 48,673                     |

|  | At Date of Cut-over. | Five years after Cut-over. |
|--|----------------------|----------------------------|
| Annual working expenses of proposed automatic system .. .. .                       | £ 6,014              | £ 10,316                   |
| Total annual charges for proposed automatic system .. .. .                         | 27,884               | 34,076                     |
| Annual working expenses of alternative common battery manual system .. .. .        | 11,688               | 16,912                     |
| Total annual charges for alternative common battery manual system .. .. .          | 32,186               | 40,301                     |
| Assets recoverable or thrown spare if automatic exchange is installed—             |                      |                            |
| (i) Book value .. .. .   | 23,474               | ..                         |
| (ii) Recoverable value .. .. .   | 13,946               | ..                         |
| (iii) Cost of recovery .. .. .   | 685                  | ..                         |
| Difference in annual charges in favour of establishing an automatic system .. .. . | 4,302                | 6,225                      |

Regarding item 9 of the foregoing statement, the difference between sub-items (i) and (ii), viz., £10,428, is an amount which will have to be written off in the departmental accounts as representing the proportion of the capital outlay on the original asset, which is irrecoverable, and is made up as follows:—(a) exchange equipment, £2,197; (b) sub-station equipment, £8,231. These amounts represent ordinary depreciation due to wear and tear, which will be written off when new equipment is installed, whether it be of the common battery manual or automatic type. The air-conditioning plant will be operated by the mechanics ordinarily attached to the exchange. We shall not require a certified boiler attendant. The work will not occupy more than about one-third of the time of one man, and can be attended to without addition to the staff.

(Taken at Sydney.)

TUESDAY, 9TH MAY, 1922.

Present :

- Mr. GREGORY, Chairman;  
 Senator Newland                      Mr. Mathews  
 Mr. Bamford                            Mr. Parker Moloney.  
 Mr. Jackson

William Kirby Percival, Town Clerk of the municipality of Randwick, sworn and examined.

2. To the Chairman.—The present manual telephone system at Randwick is very unsatisfactory; the attention is so slow that I think the installation of an automatic system would be an improvement. With the latter the caller can almost immediately get on to the number he wants or ascertain that the line is engaged. The manual system gives a very slow connexion with other exchanges, and at times, especially at the week end, it is hard to get any reply at all from the exchange. On Sunday one has to ring about eight times before getting exchange to answer. Judging from my own experience during visits to the city the service from automatic to automatic is very much better than when there is any manual intervention. I believe that the installation of an automatic system would lead to a big increase in the number of subscribers. Even now there are in Randwick many people who cannot get a telephone, but there would be more applicants if the service were automatic. I have heard of no complaint of over-charging, but I think the public have come to the conclusion that it is absolutely useless to complain. I am not aware of any demand in our district for meters at subscribers' premises. With an automatic register at the exchange a meter at the subscriber's premises would not be necessary. I personally would not pay an additional charge for a private meter.

3. *To Mr. Parker Moloney.*—At present there are about 2,000 subscribers at the Randwick Exchange. I cannot state the number of the waiting applicants, but I think that the departmental estimate of 4,900 subscribers five years after the cut-over to the automatic system is on the conservative side. Since 1911, the average number of houses built per annum is over 600. As many as 900 were built in one year, and in the worst year of the war over 499 were erected. There is plenty of room for further growth, especially towards Long Bay and La Perouse, which are within the Randwick District. At least one-third of the Randwick population would use the telephone if it were available at a reasonable cost. There is no sign of any decline in house building in the Randwick District, which includes Coogee and Kensington, and extends from Centennial Park to the shores of Botany Bay. Some big estates are being cut up in the Kensington area, and Crown lands are being occupied every day under the housing scheme of the State Government, who are now opening up another big area. In my own office there is cause of complaint almost daily. Aldermen complain from time to time that the present telephone service is slow; often a subscriber is kept waiting a long time before being told that the number he wants is engaged. I think the automatic system would mean an economy of the user's time. One man working in my office moved into a new house about eighteen months ago, and there was a delay of seven months in shifting his telephone.

4. *To Mr. Mathews.*—The question of whether or not an expenditure of £137,000 upon the installation of a new telephone exchange is justified when there is already in existence a more or less satisfactory service is one for the Department to decide. The answer depends largely upon the anticipated return on the capital outlay; but I do know that if the service were good and prompt there would be more subscribers, and presumably the greater the number of subscribers the cheaper in the aggregate would be the cost of working. If the proposed new exchange will be a paying concern, it will be a false economy not to incur the expenditure.

5. *To Mr. Bamford.*—If the present apparatus is almost obsolete and must be replaced very soon, it should be replaced by an automatic system.

6. *To Senator Newland.*—Looking through the telephone account for the Town Clerk's office, I have never found any overcharge; the accounts we get seem to be reasonable, but I have heard people in the district say that their accounts are very much larger than they should be. I do not think many people would be prepared to pay an extra amount for the installation of a special meter at their premises. The audibility in connexion with the present system varies, but I think that the plugging in the exchange is at fault sometimes. I anticipate that the past progress of Randwick will be maintained during the next five years. There are about 2,000 acres of Crown land available for building, and it is understood also that the rifle range is to be removed from Randwick. That will make available another large area. In each of the last two decennial periods, the population of Randwick has doubled, and is now about 50,000. An exchange capable of extension to 6,000 lines will, I think, be satisfactory. Of course, increase of population will mean increase of business premises, and most business men require telephones. I believe also that if the service were better, there would be more applications for telephones in private houses.

*The witness withdrew.*

George John Oakeshott, Commonwealth Works Director for New South Wales, sworn and examined.

7. *To the Chairman.*—For the proposed automatic exchange at Randwick a new building is not required. We have planned an addition at the back of the existing building and considerable alterations in front. But, generally speaking, the existing building is not to be much altered. The additions include a room for the air-conditioning plant and an escape staircase. The balance of the work will consist of alterations, including the fire-proofing of a large floor area. The estimated cost is £2,374 for the building and £3,500 for the plant. I think those figures are quite reasonable.

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**WAVERLEY AUTOMATIC EXCHANGE.**

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(Taken at Sydney.)

MONDAY, 8TH MAY, 1922.

Present :

Mr. GEORGY, Chairman;  
 Senator-Foll | Mr. Bamford  
 Senator Newland | Mr. Jackson  
 Senator Plain | Mr. Mathews.

John Murray Crawford, State Engineer, Postmaster-General's Department, New South Wales, sworn and examined.

1. *To the Chairman.*—The proposal before the Committee is to make alterations and additions to the present telephone exchange building at the corner of Cowper and Birrell streets, Waverley, and to install therein an automatic telephone switching system, having an immediate equipment of 3,200 subscribers' lines and an ultimate capacity of approximately 4,500 subscribers' lines. It is proposed that the initial equipment shall be capable of extension to the ultimate capacity named, thereby affording sufficient accommodation for the anticipated development in the proposed Waverley automatic exchange area. The subscribers in the proposed area are served by a non-multiple manual magneto switchboard installed in the Waverley Exchange. In a multi-exchange network, such as obtains in the Sydney metropolitan area, the continuance of such a system would not be in the interests of the efficiency of installation throughout the network as a whole. The step towards increasing the general efficiency of the network, and would allow of improved service being rendered to subscribers connected to the Waverley Exchange. The estimated immediate cost of the work is:—Site (already acquired), £900; building (alterations and additions), £4,515; air-conditioning, heating, ventilating, vacuum cleaning, and air-compression plant, £3,500; exchange equipment (including that necessary at other exchanges) and cost of cut-over, £70,483; sub-station equipment, £16,379; line plant (external), £410; total, £96,187. The annual revenue derived and estimated to be obtained on the date of transfer, viz., 31st December, 1923, and with five years' development, is shown hereunder:—

| Average Number of Lines connected during Year ended 31.12.20. | Revenue received for Year ended 31.12.20. | Estimated Number of Subscribers' Lines, 31.12.23. | Estimated Annual Revenue, 31.12.23. | Estimated Number of Subscribers' Lines, 31.12.28. | Estimated Annual Revenue, 31.12.28. |
|---|---|---|-------------------------------------|---|-------------------------------------|
| 1,427   | £ 11,781                                  | 2,325   | £ 22,582                            | 3,200   | £ 31,080                            |

It is proposed that the building shall be of simple design and built on the latest fire-resisting principles. The immediate installation in the exchange is for an equipment of 3,200 subscribers' lines, but it is proposed that the building shall be designed sufficiently large to accommodate an equipment having a capacity of approximately 4,500 subscribers' lines. The financial aspect of the proposal may be summarized as follows:—

|   | At Date of Cut-over. | Five years after Cut-over. |
|---|----------------------|----------------------------|
| Capital cost—new                                  | £ 96,187             | £ 102,455                  |
| Capital cost—new and in aid                       | 139,702              | 146,970                    |
| Annual working expenses of existing manual system | 6,771                | ..                         |

|  | At Date of Cut-over. | Five years after Cut-over. |
|--|----------------------|----------------------------|
|  | £                    | £                          |
| Annual revenue—  |                      |                            |
| Actual, as at 31st December, 1920 .. ..  | 11,781               | ..                         |
| Estimated, 31st December, 1923 .. ..   | 22,582               | 31,080                     |
| Annual working expenses of proposed automatic system .. ..                       | 6,382                | 7,596                      |
| Total annual charges for proposed automatic system .. ..                         | 20,056               | 22,371                     |
| Annual working expense of alternative common battery manual system .. ..         | 9,767                | 12,080                     |
| Total annual charges for alternative common battery manual system .. ..          | 22,801               | 26,164                     |
| Assets recoverable or thrown spare if automatic exchange is installed—           |                      |                            |
| (i) Book value .. ..   | 22,787               | ..                         |
| (ii) Recoverable value .. ..   | 15,122               | ..                         |
| (iii) Cost of recovery .. ..   | 651                  | ..                         |
| Difference in annual charges in favour of establishing an automatic system .. .. | 2,635                | 3,793                      |

Regarding item 9 of the foregoing statement, the difference between sub-item (i) and (ii), viz., £7,665, is an amount which will have to be written off in the departmental accounts as representing the proportion of the capital outlay on the original asset, which is irrecoverable, and is made up as follows:—(a) Exchange equipment, £910; (b) sub-station equipment, £6,755. These amounts represent ordinary depreciation, due to wear and tear, which will be written off when new equipment is installed, whether it be of the common battery manual or automatic type. No big orders for telephone plant have been placed recently but there is bound to be a reduction in present prices as time goes on. Tenders are called locally, and both American and English firms have their agents here. The existing wing along Birrell-street will be needed for use while we are installing the automatic exchange in the new building, but what will become of it afterwards I cannot say. I can see no objection to the letting of that wing for shop or office purposes. Later, if necessary, it could be used as linemen's quarters. The luncheon and retiring rooms are required for a maximum of about eight or nine men.

(Taken at Sydney.)

TUESDAY, 9TH MAY, 1922.

Present :

Mr. GEORGY, Chairman;  
 Senator Newland | Mr. Mathews  
 Mr. Bamford | Mr. Parker Moloney.  
 Mr. Jackson

George John Oakeshott, Commonwealth Works Director for New South Wales, sworn and examined.

2. *To the Chairman.*—For the new automatic exchange at Waverley we are proposing considerable additions and alterations to the old Waverley Post-office, which is at present in use as a manual exchange. The frontage to Birrell-street will remain as at present, but the frontage to Cowper-street back to the lane is to be altered and added to. The estimated cost of the building is £4,515, and of the air-conditioning plant £3,500. As far as I know the Birrell-street frontage is self-contained, and can be cut off from the main part of the building and utilized for office purposes, after the automatic equipment has been installed in the new building.

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GORDON AUTOMATIC EXCHANGE.

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(Taken at Sydney.)

MONDAY, 8TH MAY, 1922.

Present :

Mr. GREORY, Chairman;  
 Senator Foll | Mr. Bamford.  
 Senator Newland | Mr. Jackson.  
 Senator Plain | Mr. Mathews.

John Murray Crawford, State Engineer, Postmaster-General's Department, New South Wales, sworn and examined.

1. *To the Chairman.*—The proposal before the Committee is to establish a new automatic exchange, termed the Gordon Exchange, to serve existing and prospective subscribers in portions of the present Chatswood and Wahroonga exchange areas. These exchanges are 6 miles 60 chains apart, and it is proposed to establish the new exchange on a block of land already held by the Department, situated at the corner of Lane Cove-road and Powell-street. The reasons for this proposal are as follows:—(1) To reduce the line construction cost for connecting subscribers in the proposed Gordon Exchange area by a reduction of the radial distance or the length of the lines between subscribers' premises and the exchange building, and to provide for development. Within the proposed Gordon area the average length per subscriber's line is 2 miles 40 chains. When the exchange is established it will be reduced to 1 mile 20 chains. Better service will, therefore, result, and wasteful expenditure on line plant will be obviated. (2) To reduce the cost of installation and maintenance for outside construction work. (3) To improve the telephone service for subscribers' lines in the Wahroonga portion of the Gordon Exchange area, as Wahroonga Exchange is manually operated magneto, a system which is now obsolescent, for large exchange areas. The initial equipment will be for 1,600 lines, and the ultimate capacity which will be provided for is approximately 3,000 lines (actually this is eighteen years' development). The estimated immediate cost of the work is:—Site, £450; building, £3,730; air conditioning, heating, ventilating, vacuum cleaning, and air compression plant, £3,100; exchange equipment, including that necessary at other exchanges, £36,686; sub-station equipment, £1,992; line plant (conduits, cables, and open lines), £18,945; cost of cut-over of exchange equipment, £6; total, £64,909. The revenue estimated to be obtained on the date of transfer, viz., 31st December, 1923, and with five years development is shown hereunder:—

| Estimated Number of Subscribers Lines, 31st December, 1922. | Estimated Annual Revenue, 31st December, 1923. | Estimated Number of Subscribers' Lines, 31st December, 1928. | Estimated Annual Revenue, 31st December, 1928. |
|---|--|--|--|
| 1,070   | £ 10,876                                       | 1,600  | £ 16,293                                       |

It is proposed that the building shall be of simple design, and built on the latest fire-resisting principles. The immediate installation in the exchange is for an equipment of 1,600 subscribers' lines, but it is proposed that the building be designed sufficiently large to accommodate an equipment having a capacity of approximately 2,700 subscribers' lines. The financial aspect may be summarized in this way:—

|   | At Date of Cut-over. | Five years after Cut-over. |
|---|----------------------|----------------------------|
| Capital cost—New .. .. .  | £ 64,900             | £ 68,302                   |
| Capital cost—New and in situ .. .. .  | 70,000               | 83,083                     |
| Annual working expenses of proposed automatic system .. .. .                | 3,493                | 4,140                      |
| Annual working expenses of alternative common battery manual system .. .. . | 5,664                | 6,809                      |
| Annual revenue—Estimated .. .. .  | 10,876               | 16,293                     |
| Total annual charges for proposed automatic system .. .. .                  | 11,032               | 12,320                     |
| Total annual charges for alternative common battery manual system .. .. .   | 13,244               | 15,109                     |

|   | At Date of Cut-over. | Five years after Cut-over. |
|---|----------------------|----------------------------|
| Assets recoverable or thrown spare if automatic exchange is installed on 31st December, 1923— | £                    | £                          |
| (i) Book value .. .. .  | 14,230               | ..                         |
| (ii) Recoverable value .. .. .  | 5,202                | ..                         |
| (iii) Cost of recovery .. .. .  | 4,220                | ..                         |
| Difference in annual charges in favour of establishing an automatic system .. .. .            | 2,212                | 2,780                      |

Regarding Item 8 of the foregoing statement, the difference between sub-items (i) and (ii), viz., £9,028, is an amount which will have to be written off in the departmental accounts as representing the proportion of the capital outlay on the original asset, which is irrecoverable, and is made up as follows:—(a) Sub-station equipment, £1,239; (b) line plant, £7,799. It is essential to establish a new exchange at Gordon, in order to give a reasonably good service to the subscribers. This proposal for an exchange at Gordon was first put forward in 1913. Every life added to the Chatswood and Wahroonga Exchanges means the building of a subscribers' line nearly 2 miles longer than is necessary. The proposal before the Committee will result in economy, and give a better service to the subscribers. The proposed building is to be constructed of brick, and I think that the plan might be improved by substituting a parapet wall for the overhanging eave on the side on which other buildings are likely to be erected. According to the plan before the Committee, there is a right-of-way of 10 feet at one side of the building, with the exception of the battery-room, which is built out to the boundary. There is not much fire risk associated with the battery-room. I think that it would be advisable to put the building 5 or 6 feet further towards the front of the allotment, in order to make a wider right-of-way at the back.

(Taken at Sydney.)

TUESDAY, 9TH MAY, 1922.

Present :

Mr. GREORY, Chairman;  
 Senator Newland | Mr. Mathews  
 Mr. Bamford | Mr. Parker Moloney.  
 Mr. Jackson

George John Oakeshott, Commonwealth Works Director for New South Wales, sworn and examined.

2. *To the Chairman.*—The plans before the Committee provide for a one-story brick building, with tiled roof, and reinforced concrete floors. The building will cover nearly the whole of the site. The estimate for the building is £3,730, and for the air-conditioning plant £3,100. I do not think it is desirable to bring the building further towards the front of the land. This is to be a suburban building, and we thought that by standing it back in the ground we would leave room for a little garden in the front, so that the place will be in keeping with the surroundings. No more accommodation at the back is necessary; all that is required is to insure that the light is not cut off from the rear windows. Coal would be delivered into the coal bunkers straight from Lane Cove-road. The small passage-way allowed at the back of the building is intended only to give access to the sanitary accommodation. Another advantage of setting the building well back is that the exchange is the portion, if any, which will require to be extended, and this layout allows of the possibility of an extension towards the Powell-street frontage, without altering any other part of the building. There is a parapet wall on one side of the building, and one could be provided on the other side in substitution for the overhanging eaves, but it would destroy the architectural beauty to some extent. With an 8 ft. 2 in. right-of-way I thought the fire risk on that side would be small. A parapet wall is provided on the rear portion of the building, because of the possibility that buildings might be erected right against the exchange.

3. *To Mr. Bamford.*—Wire-netted glass is necessarily thick and expensive, and for that reason we do not put it in suburban buildings.