

**TELECOMMUNICATIONS BOARD:  
CAPITAL PROPOSALS FOR 1989 TO 1993.**

---

**Lodged au Greffe on 7th June, 1988**

---



**STATES OF JERSEY**

**STATES GREFFE**

175

1988

P.69

Price : 75p

**PROPOSITION**

**THE STATES are asked to decide whether they are of opinion -**

- (1) to note the Telecommunications Board report for the years 1989 to 1993;
- (2) to approve in principle the capital proposals by the Telecommunications Board for the years 1989 and 1990 as follows -
  - (a) the replacement and extension of existing telephone exchanges;
  - (b) the replacement, extension and development of the network;
  - (c) the replacement and provision of customer apparatus;
  - (d) the replacement and provision of support services;
  - (e) the extension of the Jersey-France microwave link;
  - (f) the making good and refurbishment of equipment rooms in Telephone House as office and staff welfare accommodation, and resurfacing at South Exchange.

**TELECOMMUNICATIONS BOARD**

**NOTE:** The Finance and Economics Committee supports the Proposition, but reserves its position with regard to the availability of funds until consideration of the relevant budgets.

## REPORT.

The Telecommunications Board presented its current five-year capital programme to the States in June 1986. Approval in principle was given for the first two years, 1987 and 1988, and this Report and Proposition seeks approval for a further two years, 1989 and 1990. The opportunity is also taken to review and present the Board's capital plans for the next five years.

### THE SYSTEM

The system may be conveniently divided into five main parts -

#### 1. Telephone exchanges

The Island is served by five telephone exchanges. By September of this year, all of the Strowger electro-mechanical equipment will have been recovered and replaced by System X. Two exchanges, North and East, are of the electro-mechanical cross-bar type and will be 20 years in service in 1995. This will be the limit of their efficient service life, and it is proposed to replace the smaller of the two, North, in 1992. The recovered equipment will be used as spare parts to maintain the East exchange until 1994/95.

Central exchange acts as a trunk switch and parent exchange for the digital units at North and East. It is proposed to install a second processor in Central in 1990/91, which will handle the digital traffic from North and East as the electro-mechanical units are replaced, and which will share the load of local central lines.

South exchange was completely replaced by digital equipment earlier this year and by the middle of the year, there will be a digital System X unit in each of our exchanges. Growth in the system will be handled by these units which will be extended as the need arises.

Currently, the total exchange line system is growing at just under five per cent, with the Central exchange which carries the bulk of business traffic, growing at just over five per cent.

2. **The network**

This consists of local and junction cables together with the supplementary services.

(a) Local cables

Over 88 per cent of the local customer network is now underground. Virtually all new cabling is placed underground and there is a continual programme of renewal, conversion, and extension planned for the next five years.

(b) Junction cables (inter exchange cables)

Traditional multi-core copper cables are now being replaced by, and extended with transverse screen and fibre optic cables. The need for duct space has been reduced very significantly, as has the necessity to dig new road trenches and disrupt traffic.

(c) Supplementary services

One of the most important developments arising from the proliferation of sophisticated but cheap electronic systems is the growth in those services which are additional to the established public switched telephone network. Increasing use is being made of systems which can package, address, send and deliver messages of all kinds. The Board is aware of the need to meet the demand for these services and has already provided the following examples -

- (i) Telex
- (ii) Radio paging
- (iii) Packet switching

For the transmission of data at various speeds to various destinations. Also used for credit card verifications from shop tills and other cash points.

- (iv) Prestel

Provides access to a vast library of business, commercial, travel and entertainment information.

- (v) Electronic mail

Transmits information to and from "work positions", i.e. visual display units and keyboards.

- (vi) Cellular radio

The system was commissioned in early 1987 and has proved a commercial and technical success, with the number of customers approaching 200.

- (vii) High speed data services (X stream)

There is a growing demand for services needing high speed data transmission. Typical uses are -

bank transfer of account information;

meteorological information transfer;

printing of newspaper text.

The capital inscribed will purchase multiplexors and related equipment.

(viii) New developments

Just as packet switching and cellular radio were projects in the period covered by the capital proposals for 1987-1991, it is inevitable that new services will evolve in the next five years. So that the Board can respond promptly, sums of £50,000 per annum have been inscribed for new developments as yet unidentified, and two amounts, £95,000 and £126,000, have been inscribed for projects, Voicebank and video conferencing respectively, already under appraisal.

3. Customer apparatus

The business is currently experiencing an unprecedented growth in demand for customer apparatus of all kinds, just as it was in 1986. Only part of this growth is reflected in these proposals, as an increasing percentage of apparatus is sold and not rented. Apparatus purchased by customers is bought out of revenue as an operating expense. The present exceptional growth is due to several factors. Firstly, the finance sector is expanding rapidly. Secondly, the life of apparatus is becoming shorter as new versions with more and better facilities become available, and thirdly, the greatly increased choice is persuading customers to buy or rent additional telephones.

4. Support services

Included in this category are the purchase and replacement of transport, mechanical aids, test equipment, tools, office equipment, furniture and fittings.

## 5. Accommodation

These capital proposals include two significant amounts for building and accommodation.

### (a) Telephone engineering centre

The Telephone Engineering Centre at Five Oaks, which houses the main workshop and store, was built in 1976. The network has grown by over 50 per cent since then and the number of different items stocked has risen enormously with the proliferation of new types of telephones and ancillary apparatus. Storage space at the centre is now inadequate, and by 1990 the temporary accommodation already in use will have to be replaced by a permanent building extension. The original plans included provision for a first-floor extension and a sum of £386,000 has been inscribed to cover building and fitting-out costs. The Department of Public Building and Works has agreed to plan the extension and a separate report and proposition will be brought to the States in due course.

### (b) Telephone House

By the end of 1988, the electro-mechanical equipment will be recovered, leaving space for the rehousing of the Board's out-stationed staff. The equipment rooms will be converted for office, welfare and engineering use and a sum of £500,000 has been inscribed for this purpose. Detailed plans and estimates are in course of preparation, and it is hoped to start work in January 1989, with a completion date estimated as mid-1991. The work will involve complex staff movements and will be carried out in four or five separate phases. Plans and estimates are in course of preparation and will be brought to the States in due course.



(c) South Exchange

The sum of £21,000 has been included for the resurfacing of the entrance and yard at South Exchange.

6. **External links**

The two new external links, for which capital has already been voted, (the submarine cable to Dartmouth and microwave radio link to the United Kingdom via France), are currently being installed and should be completed by the end of 1988. The only additional capital inscribed in this report is a sum of £63,000 which may be used in 1989/90 to extend the existing Jersey to France radio link, if Jersey to France terminating traffic growth justifies the extension.

**FINANCIAL IMPLICATIONS**

The system continues to grow by around five per cent per annum and there is every indication that this growth will continue for at least another two years and probably for the five-year period covered by these proposals.

Added to this growth, there is also a steady and significant increase in the use of the system, so that revenue has increased by 104 per cent since 1982 and profit by 178 per cent. It is worth noting, in comparison, that the number of people employed has risen by only six per cent over the same period and that the unit call fee, 3.8 pence in 1984, is still only 3.9 pence.

The financial performance of the Board since 1983 is shown in Appendix 1 and the capital proposals are shown in Appendix 2. The Board is confident that given adequate resources, a satisfactory return on this capital will be made and that more than sufficient revenue will be generated to repay the capital borrowed and its servicing costs.

**MANPOWER IMPLICATIONS**

**No additional manpower beyond the current staff levels will be needed to support these proposals.**

## APPENDIX 1.

**TELECOMMUNICATIONS BOARD  
FINANCIAL PERFORMANCE 1983-1987**

	1983	1984	1985	1986	1987	Total
	£000's	£000's	£000's	£000's	£000's	£000's
Net income	8,526	10,411	12,092	13,313	15,621	59,963
Operating costs	3,596	4,264	4,508	5,090	5,816	23,274
Interest	1,373	1,475	1,802	1,779	1,904	8,333
Depreciation	<u>1,214</u>	<u>1,780</u>	<u>1,748</u>	<u>1,559</u>	<u>1,985</u>	<u>8,286</u>
	<u>6,183</u>	<u>7,519</u>	<u>8,058</u>	<u>8,428</u>	<u>9,705</u>	<u>39,893</u>
<u>Commercial</u>						
<u>profit</u>	<u>2,343</u>	<u>2,892</u>	<u>4,034</u>	<u>4,885</u>	<u>5,916</u>	<u>20,070</u>
<u>Capital</u>						
<u>employed</u>	17,227	18,489	20,524	23,733	26,440	
<u>Profit as %</u>						
<u>return on capital</u>	13.6%	15.6%	19.7%	20.6%	22.4%	NA
<u>Contribution to</u>						
<u>States' funds</u>						
Surplus to						
general						
revenues	2,503	3,183	3,767	4,850	5,854	20,157
Interest	1,373	1,475	1,802	1,779	1,904	8,333
Capital						
repayments	<u>1,054</u>	<u>1,489</u>	<u>2,015</u>	<u>1,594</u>	<u>2,047</u>	<u>8,199</u>
TOTAL	<u>4,930</u>	<u>6,147</u>	<u>7,584</u>	<u>8,223</u>	<u>9,805</u>	<u>36,689</u>
<u>Capital borrowed</u>						
<u>by Telecoms</u>	<u>2,052</u>	<u>1,864</u>	<u>2,844</u>	<u>3,746</u>	<u>3,871</u>	<u>14,377</u>

## APPENDIX 2.

TELECOMMUNICATIONS BOARD  
CAPITAL PROPOSALS 1989 TO 1993

	1989	1990	1991	1992	1993	Total
	£000'S	£000'S	£000'S	£000'S	£000'S	£000'S
Exchange development	767	1,264	1,098	1,197	2,332	6,658
Network development	1,059	1,222	995	1,020	1,361	5,657
Customer apparatus	1,089	1,101	1,168	1,237	1,313	5,908
Support services	270	188	179	200	196	1,033
Accommodation	521	386	-	-	-	907
External links	<u>63</u>	<u>-</u>	<u>-</u>	<u>-</u>	<u>-</u>	<u>63</u>
	<u>3,769</u>	<u>4,161</u>	<u>3,440</u>	<u>3,654</u>	<u>5,202</u>	<u>20,226</u>