

# COMMERCE

## New Zealand Telecommunications 1987 – 1998

New Zealand Telecommunications  
Information Publication No. 6  
Resources and Networks Branch  
Ministry of Commerce  
December 1998

### SUMMARY

This information publication provides:

1. Overview of the New Zealand telecommunications market 1987-1997;
2. Annual update of key industry events from 1998 on; and
3. Key statistical information on the New Zealand telecommunications industry from 1987 on.

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Telecom New Zealand Ltd	<a href="http://www.telecom.co.nz">http://www.telecom.co.nz</a>
Telecom New Zealand Access Standards	<a href="http://www.telepermit.co.nz">http://www.telepermit.co.nz</a>
Clear Communications Ltd	<a href="http://www.clear.co.nz">http://www.clear.co.nz</a>
Vodafone Communications Ltd	<a href="http://www.vodafone.co.nz">http://www.vodafone.co.nz</a>
Telstra New Zealand Ltd	<a href="http://www.telstra.co.nz">http://www.telstra.co.nz</a>
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## **1. OVERVIEW OF THE NEW ZEALAND TELECOMMUNICATIONS MARKET 1987-1997**

1. This section provides a summary of regulatory and market development up until the end of 1997. More recent events are included in section 2.

### **1.1 Summary**

2. Up until 1988 the New Zealand Post Office had a statutory monopoly in the provision of public telecommunications services in New Zealand. The New Zealand Government comprehensively reformed the telecommunications regulatory environment over the period 1987-89. The aim of the reform was to improve the industry's economic performance and increase consumer benefits by creating competitive, open entry telecommunications markets supported by general competition law.

3. On 1 April 1987 a new State-owned Enterprise (SOE), Telecom Corporation of New Zealand Ltd was formed, by the separation of the telecommunications element of the Post Office from its postal and banking arms. The regulatory and policy advice functions of the former Post Office were transferred to the Department of Trade & Industry (now the Ministry of Commerce).

4. Between 1 October 1987 and 1 April 1989 the supply of customer premises equipment was progressively deregulated. On 1 April 1989, all legal restrictions on telecommunications services market entry were removed. Telecom was privatised in September 1990, and competition in telecommunications services developed from 1991 with the signing of the first interconnection agreement.

5. Key benefits of telecommunications deregulation have been:

- Substantial price reductions for telecommunications consumers;
- Improved service availability, in terms of access to new services, fault service response, and new service installation times;
- Ongoing investment in the New Zealand telecommunications market. Particularly from BCL, Clear, Global One, Saturn, TeamTalk, Telecom NZ, Telstra NZ, Vodafone (formerly BellSouth NZ) and WorldxChange;
- The development of competition in the provision of leased circuits and data services, cellular service, long distance calls and freephone service;
- The development of competition for business telephone services in metropolitan business centres and more recently for residential telephone service in the Wellington area.

### **1.2 Background to deregulation**

6. In the late 1970s and early 1980s New Zealand's economic performance declined significantly. A significant period of economic reform followed focusing on the removal of protection and the development of competitive markets. As part of this reform process in the 1980s, it was clear that export diversification and import

substitution alone would not be enough to restore the New Zealand economy to its former strength. In particular, it was recognised that the so-called non-(internationally) traded goods sector, was not subject to significant economic pressures to perform. A number of studies highlighted the need for improved efficiency in such areas to assist economic recovery.

7. In telecommunications as in many other sectors, such as airlines, railways and banking, the Government recognised that private ownership could provide a better ongoing basis for the efficient operation of these enterprises.

8. The New Zealand Post Office was a key public enterprise in the mid 1980s and included telecommunications, banking and postal operations. In 1984, it was New Zealand's largest single employer, with 41,000 staff. A review in 1985 (the Mason/Morris report) highlighted the inadequacies of the existing organisational structure, recommending that the Post Office be re-organised into specific business units. In the telecommunications area, opening up enhanced services and the customer premises equipment markets to competition were recommended.

### ***1.3 Deregulation of the telecommunications service industry***

9. Telecom commenced business as a separate corporation on 1 April 1987 with 26,500 staff. Regulatory and policy advice functions and management of the radio frequency spectrum were transferred to the Department of Trade & Industry (now the Ministry of Commerce).

10. In 1987, the Touche Ross report, commissioned by the Government, identified a need for considerable improvement in Telecom's operations. For example, the report highlighted that the corporation was engineering rather than market-driven, did not achieve a level of efficiency comparable to the best practice of overseas telephone companies, and Telecom's management systems were inadequate.

11. The report identified large cross-subsidies between long distance call charges and access (i.e. line rental) charges, meaning that price reductions for toll call services could increase local access charges substantially.

12. The report concluded that competition in network services was sustainable, provided satisfactory interconnection arrangements could be made. In July 1989, the Chairman of Telecom gave an undertaking that Telecom would ensure that interconnection would be provided to competitors on a fair and reasonable basis.

13. In September 1990, the Government sold Telecom to a consortium led by Ameritech of Chicago and Bell Atlantic of Philadelphia for \$NZ4.25 million. The proceeds were used to retire public debt.

### ***1.4 Telecommunications Regulatory Environment***

14. Since the telecommunications sector was liberalised, successive governments have taken the view that a market-driven, light-handed telecommunications regulatory framework is an effective means of achieving consumer benefits and efficient economic outcomes.

15. To maintain conditions of effective competition, the Government placed primary reliance on general competition law, the Commerce Act 1986, in particular those parts of the legislation which deal with misuse of a dominant position in the

market and prohibition of business acquisitions which create or strengthen market dominance.

16. Government policy statements on telecommunications competition have spelt out the general policy, along with a reserved position that, if it proves to be necessary the Government would consider the introduction of other statutory measures or regulation.

17. Consumers' rights in the supply of telecommunications services are covered by the Fair Trading Act 1986, which prohibits certain conduct and practices in trade and provides for the disclosure of consumer information relating to the supply of goods and services.

#### **1.4.1 Kiwi Share Obligations (KSO)**

18. Recognising that Telecom was in a dominant position in the telecommunications market, the Government placed particular provisions known as the Kiwi Share Obligation (KSO) in Telecom's Articles of Association (now its Constitution). Specifically, the KSO requires Telecom to:

- Maintain a local free-calling option for all residential telephone customers;
- Ensure that the rate of increase in the residential telephone line rental, which includes the cost of all local calls, does not result in the rental increasing in real terms above its 1 November 1989 rate of \$NZ27.80 per month (excluding GST), unless Telecom's profits are unreasonably impaired. The rental itself was reduced in August 1997, to offset the charge introduced by Telecom for directory assistance for residential customers;
- Ensure that the line rental for residential users in rural areas is no higher than the standard residential line rental;
- Continue to make ordinary residential telephone services as widely available as at the date of adoption of the KSO.

19. The Minister of Finance is the Kiwi Shareholder. The Ministry of Commerce monitors and reports to Ministers on Telecom's compliance with the KSO.

#### **1.4.2 Information disclosure**

20. Telecom as the dominant player in the New Zealand market is required to disclose certain information to improve transparency and facilitate market entry. The Telecommunications (Disclosure) Regulations require Telecom to disclose:

- Price information about certain prescribed services, eg leased circuits and discounts on prescribed services in excess of 10%;
- The full text of interconnection agreements within a specified time after their conclusion; and
- The financial statements of Telecom New Zealand Ltd.

#### **1.4.3 Numbering**

21. The New Zealand Telecommunications Numbering Advisory Group (NZTNAG) was established in December 1992 to assist in the co-ordination of numbering issues such as number administration and the portability of numbers

between competing carriers. The NZTNAG has been chaired by the Ministry of Commerce and included representatives of carriers and users. NZTNAG operates on a consensus basis.

#### **1.4.4 Interconnection**

22. In New Zealand the resolution of interconnection disputes is provided for by general competition law, with access to the courts to resolve specific matters.

23. There have been a number of legal disputes over interconnection, particularly that of 1991-96 between Clear and Telecom concerning local access terms. Clear sought interconnection at incremental cost, with payments between the two companies on a reciprocal basis. Telecom subsequently offered pricing terms based on the “Efficient Component Pricing Rule” (ECPR), also known as the Baumol-Willig rule, which would have required Clear to pay Telecom the opportunity cost of providing interconnection together with a contribution to common costs and profits including any monopoly profit foregone by Telecom from business lost to Clear.

24. The case went to the Privy Council, who held that the Baumol-Willig rule did not breach section 36 of the Commerce Act. The Government subsequently stated that it was opposed to the use of this pricing principle because it had the potential to lessen competition. The terms finally agreed between the companies set access prices at levels below those implied by the Baumol-Willig rule. In June 1996, the Government reaffirmed its reliance on general competition law to achieve its objectives in telecommunications and stated its expectation that interconnection would be provided based on terms that would promote efficiency and deliver the benefits of competition to consumers.

#### **1.4.5 Access to radio spectrum and frequencies**

25. Operators who require spectrum can either purchase the right to use some frequencies or purchase a use licence for specific frequencies from the Ministry of Commerce. Radio spectrum transmissions are subject to the Radio-communications Act 1989, which provides for the creation and registering of:

- A tradeable management right over any defined frequency band for a specified period, to a maximum of 20 years;
- A tradeable spectrum licence by the owner of a management right for frequencies within the band covered by the management right;
- A non-tradeable radio licence by the Ministry of Commerce where no management right exists.

26. A public register of spectrum rights and radio licences is maintained by the Ministry of Commerce. Among other things, this enables adequate interference co-ordination to be maintained.

27. Government’s general policy is to progressively convert spectrum used by commercial radio-communications services to the spectrum rights regime, usually by way of a public auction. Where new radio-communications, telecommunications or broadcasting technologies are developed which use unused or under-utilised spectrum, the Ministry of Commerce consults with interested parties with a view to facilitating access to that spectrum.

#### **1.4.6 Network operator status**

28. In 1989, the Government introduced a special provision, Network Operator status, to provide a company with the right to apply for a court order to install telecommunications plant on public and private property. It is not a pre-requisite for conducting business as a carrier but companies can find it useful, especially when dealing with local authorities. Designation is automatic on application for those that qualify, and no fee is payable.

A list of companies which have network operator status is at Annex I.

#### **1.4.7 International Services Regulations**

29. Companies that wish to operate facilities-based international services must be registered under the Telecommunications (International Services) Regulations. Registration is not required for call-back type services. Registration is, effectively, automatic on application and payment of a fee. Companies currently registered are listed in Annex II.

#### **1.4.8 Telecommunications equipment**

30. The Ministry of Commerce is responsible for the administration of equipment standards for telecommunications equipment where electrical safety and electro-magnetic compatibility are concerned. The responsibility for setting the standards for equipment to be attached to telecommunications networks lies with the network operators themselves: it is not a regulatory function.

31. One operator, Telecom New Zealand, has established a formal process for setting standards for equipment which may be attached to its public switched telecommunications network. Specifically, Telecom operates a permit to connect approval system for equipment to be attached to its network. Such standards are developed in consultation with interested parties. Test results from overseas laboratories that meet New Zealand equipment standards are accepted. Both the range of equipment and the number of suppliers have increased substantially. Further information can be obtained from the Telecom New Zealand Access Standards website : <http://www.telepermit.co.nz>.

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## **2. ANNUAL UPDATE: KEY INDUSTRY EVENTS FROM 1998**

### **January 1998**

- Discussion Paper on penalties, remedies and court processes under the Commerce Act 1986 is released by Ministry of Commerce. The paper proposes that increased penalties and remedies apply for anti-competitive behaviour.
- Telephone number portability is introduced into New Zealand, by Telecom New Zealand, Clear Communications and Telstra New Zealand's networks, using call forwarding.

### **February 1998**

- Telecom announces an ADSL<sup>1</sup> trial (using its existing twisted copper network to deliver high speed data and video services) in Wellington. This was followed by an announcement in October of its intention to roll out commercial service of xDSL technologies in 1999.

### **April 1998**

- Clear announces it will start trialling LMDS<sup>2</sup> as a mechanism for wireless local loop service (for voice and data) to business customers in main centres from September.

### **May 1998**

- Saturn launches a residential local telephony service in the Hutt Valley, with a rate of NZ\$29.95 per month compared to Telecom's NZ\$35.66. This is the first residential local wireline competition in New Zealand. Saturn subsequently expanded to part of the Kapiti Coast and some of Wellington's western suburbs by the end of December. Saturn is continuing to expand its residential telephony service to all of Kapiti and Wellington city and suburbs. It intends to complete its investment of NZ\$230 million in the Wellington area by the end of 1999.

### **June 1998**

- Telecom announces the closure of its First Media cable TV service at the end of July. This followed the decision in November 1997 to stop the rollout of the hybrid fibre coax (HFC) network at 68,000 homes passed (in Auckland and Wellington). Telecom said First Media was closed due to the poor take-up rate of potential customers (approximately 3%) and the decision to concentrate on

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<sup>1</sup> Asynchronous Digital Subscriber Line. This technology digitises signals over conventional twisted copper wire line, enabling high speed data service to be offered along the same lines as conventional switched telephony.

<sup>2</sup> Local Multipoint Distribution System. A super high frequency wireless technology which is cellular based, used to deliver local telephony service and high speed data.

trailing xDSL technologies for delivery of high speed data to residential customers. Telecom is still evaluating ways to utilise its HFC network, possibly to deliver high speed data services to residential customers.

- The Treasurer releases a Strategic Overview Paper on the telecommunications industry prepared by Treasury and the Ministry of Commerce. The paper highlighted key reviews underway of numbering administration and portability issues, penalties and remedies under the Commerce Act and the Telecommunication (Disclosure) Regulations.

### **July 1998**

- The Commerce Commission releases findings on Telecom's competitive response to Saturn's entry (a \$5 loyalty discount). The Commission considered that Telecom was pricing above marginal cost. Regional pricing per se, is not necessarily a breach.
- WorldxChange launches a partnership with retail chain Deka to sell its discounted national and international toll services to residential customers. As of September, WorldxChange claims 6000 customers.
- In response to other service providers price reductions, Telecom reduces international toll prices by an average of 20%, with reductions on some routes and times by over 50%.

### **August 1998**

- NetTel launches service as a reseller for Telstra, offering national and international service using calling cards, targeting niche residential and business customers.
- British Telecom announces that it is increasing its stake in Clear to 50% taking over MCI's 25% shareholding.
- BellSouth (USA) and Singapore Technologies Ventures announce sale of BellSouth New Zealand to the Vodafone Group for NZ\$750 million
- The Ministry of Commerce releases a discussion paper on options for telecommunications numbering policy. The Minister of Communications sets a tight deadline, 30 November, for the industry to reach agreement on satisfactory voluntary arrangements for numbering administration and resolving longer term number portability issues.

### **September 1998**

- Superway announces it is commencing a roll out of a cable network in the North Shore of Auckland with the intention of targeting business users at first, supporting high-speed data, telephony and cable television.

### **November 1998**

- ♣ The Ministry of Commerce releases a Telecommunications (Disclosure) Regulations Discussion Paper which proposes that Telecom be required to produce separate financial statements for its local loop and its other telecommunications businesses and to undertake a full economic costing of the Kiwi Share Obligations.

- Iridium launches first global mobile personal communications by satellite (GMPCS<sup>3</sup>) service worldwide using handsets, offering service to all parts of the globe.

## **December 1998**

- Telecom, Vodafone, Telstra, Newcall and Teamtalk agree to arrangements to resolve telecommunications numbering issues. The Number Administration Deed (NAD) provides for: independent administration of each party's telecommunications numbering resources; a process for determining New Zealand's ongoing number portability requirements; and binding arbitration to efficiently resolve any disputes arising between parties with reference to agreed numbering principles to guide the arbitrator. Some parties refuse to sign up to the agreement in its present form.
- The Government issues statement of economic policy to Commerce Commission on telecommunications numbering. The Ministers of Communications and Energy state that the Commerce Commission is the appropriate forum to determine whether the deed agreed between telecommunications companies raise any competition concerns.
- The Government announces that the Ministry of Commerce will auction 32 management rights and approximately 1600 licences in the 2 GHz band of radio spectrum, which spans the frequencies 1710-2300 MHz. The rights to be auctioned are expected to support a range of technologies associated with the next generation of digital cellular mobile services, known as PCS<sup>4</sup>.

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<sup>3</sup> Global Mobile Personal Communications by Satellite. This term is generally used to describe the new generation of worldwide satellite based personal mobile telephony services. Globalstar and ICO are expected to launch similar services to Iridium in the next 2 years.

<sup>4</sup> Personal Communications Services. This refers primarily to localised mobile phone services, servicing small areas, such as factories or a residential area. It is also now used to refer to 3<sup>rd</sup> generation mobile services or IMT-2000 (International Mobile Telecommunications), which is designed to combine GMPCS, cellular mobile and PCS services into a seamless mobile telecommunications service.

### 3. KEY STATISTICAL INFORMATION ON THE NEW ZEALAND TELECOMMUNICATIONS INDUSTRY

32. This section details statistical information on the New Zealand telecommunications services industry performance in tabular and graphical form. It is updated periodically when more up to date information is available. It is important to note that some data is not readily comparable with similar information from other countries and that some information is only available for one or a small number of carriers and may not be representative of the telecommunications services sector as a whole.

#### 3.1 Service Demand

33. Summary data on total telephone line connections, cellular connections, national call minute volumes and international call minute volumes.

#### Public Switched Telephone Network Main Lines<sup>5</sup>

(in 000s)	1989	1990	1991	1992	1993	1994	1995	1996	1997	1998	Dec 1998
Telecom	1,406	1,444	1,469	1,493	1,534	1,593	1,658	1,719	1,782	1,840	1,856 <sup>6</sup>
Clear									< 1*	~1*	~2*
Saturn											7.5*
Telstra (NZ)											< 1*

\*estimated or from public statements

#### Cellular Connections<sup>7</sup>

(in 000s)	1990	1991	1992	1993	1994	1995	1996	1997	1998	Sept 1998
Telecom	29	54	72	100	144	229	339.5	422.8	476	504.8
BellSouth	-	-	-	-	-	10*	25*	70*	100*	120*
Penetration Rate			2.1%	2.9%	4.1%	6.4%	9.3%	13.6%	16.5%	

\* Newspaper reports

<sup>5</sup> As at 31 March.

<sup>6</sup> As at September 98.

<sup>7</sup> As at 31 March.

### National Call Minute Volumes<sup>8</sup>

(millions)	1993	1994	1995	1996	1997	1998
Telecom	1,423.5	1,505	1,653.5	1,897	2,155.3	2,199.9*

\* Excludes calls from Telecom fixed network to Vodafone's cellular network

### International Outward Call Minute Volumes<sup>9</sup>

	1992	1993	1994	1995	1996	1997	1998
Telecom	151.4	145	165.6	203.1	242.9	271.3	304.0

### 3.2 Industry Operational Efficiency

34. Telecom has progressively improved its efficiency measured in terms of lines per operating company employee and a range of other indicators (see below), as follows:

Note: year to 31 March	1990	1991	1992	1993	1994	1995	1996	1997	1998
Operating Company Employees	14,586	12,774	12,183	10,788	7,872	6,785	6,868	6,882	6,551
Other Employees	1,677	2,151	1,379	1,550	1,385	1,523	1,685	} 1,828	1,585
Pacific Star	-	-	-	-	-	260	578		
Lines per Operating Company employee	96	108	123	142	202	244	250	258	283
Operating expenses per total access line <sup>10</sup>	\$1,184	\$1,180	\$1,179	\$1,026 <sup>11</sup>	\$928	\$958	\$974	\$851 <sup>13</sup>	885
				\$1,328 <sup>12</sup>					
Operating Expenses % Operating Revenues					64.6%	63.6%	62.9%	60.4% <sup>14</sup>	60.6

### 3.3 International Comparisons Statistics

35. The OECD has established a methodology for comparing residential telephone service charges, business service charges, data circuit charges, cellular charges and a number of other services tariffs. The methodology is based on costing out a representative basket of component services and quantities, such as installation, access and call usage, in specified amounts, in each country's currency, and then

<sup>8</sup> millions in year to 31 March, excluding interconnect.

<sup>9</sup> millions in year to 31 March.

<sup>10</sup> Total access lines = number of main lines + cellular connections.

<sup>11</sup> Excluding 1993 abnormal costs.

<sup>12</sup> Including abnormal restructuring item of \$493 million for period 1993-97 in 1993 result with consequent affect in following years.

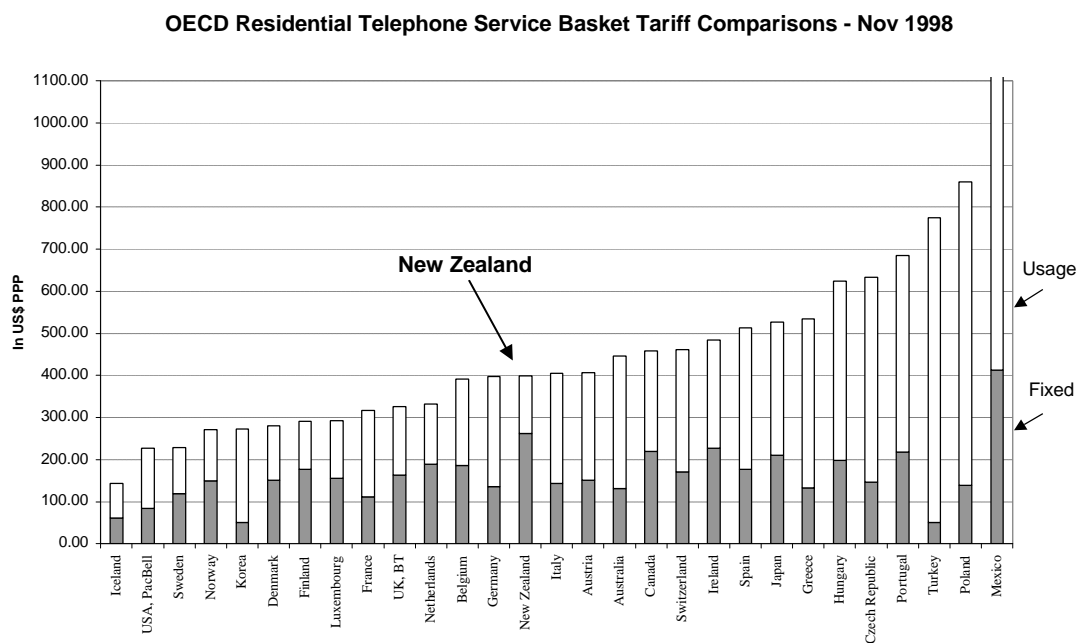
<sup>13</sup> Excludes 1997 abnormal items.

<sup>14</sup> Excludes 1997 abnormal items, includes Pacific Star which is now classified by Telecom as a discontinued business operation.

converting to a common base via the use of 'purchasing power parity exchange rates'<sup>15</sup> (PPP). While there is scope to argue that the methodology may not properly be representative of users actual cost structures and that the use of PPP exchange rates is problematic, the method never-the-less allows direct comparisons of typical telecommunications services costs between countries.

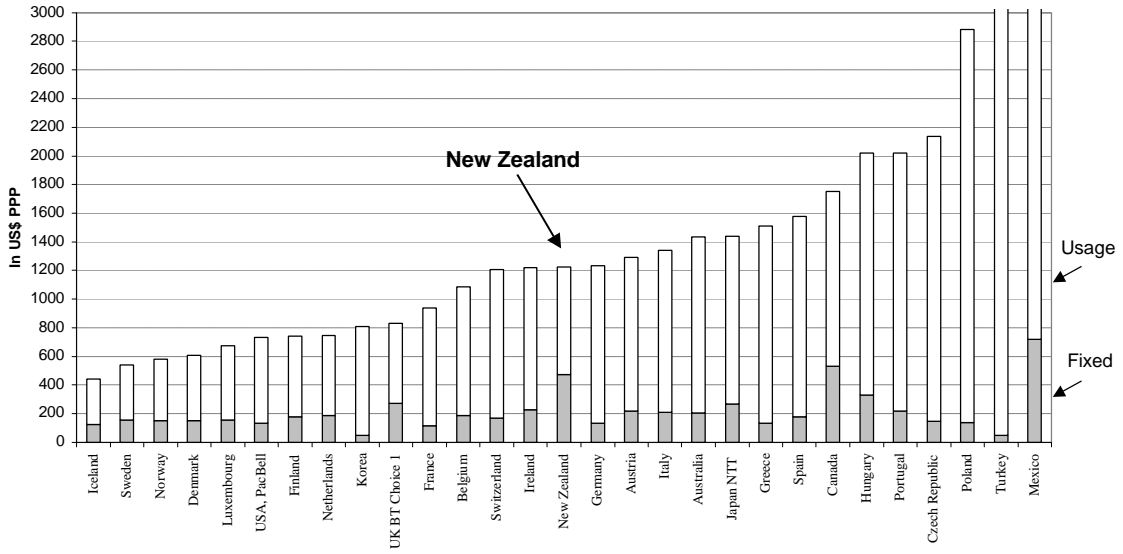
### OECD Basket Comparisons of Residential and Business Telephone Service Charges

36. The following charts show the comparative ranking of residential and business telephone services tariffs for OECD countries, based on the OECD tariff basket model. New Zealand is ranked 14<sup>th</sup> in residential and 15<sup>th</sup> in business, out of 29 countries.



<sup>15</sup> PPP exchange rates are based on comparison across countries of the cost of a representative basket of goods and services - hence the term purchasing power parity.

**OECD Business Telephone Service Basket Tariff Comparisons - Nov 1998**

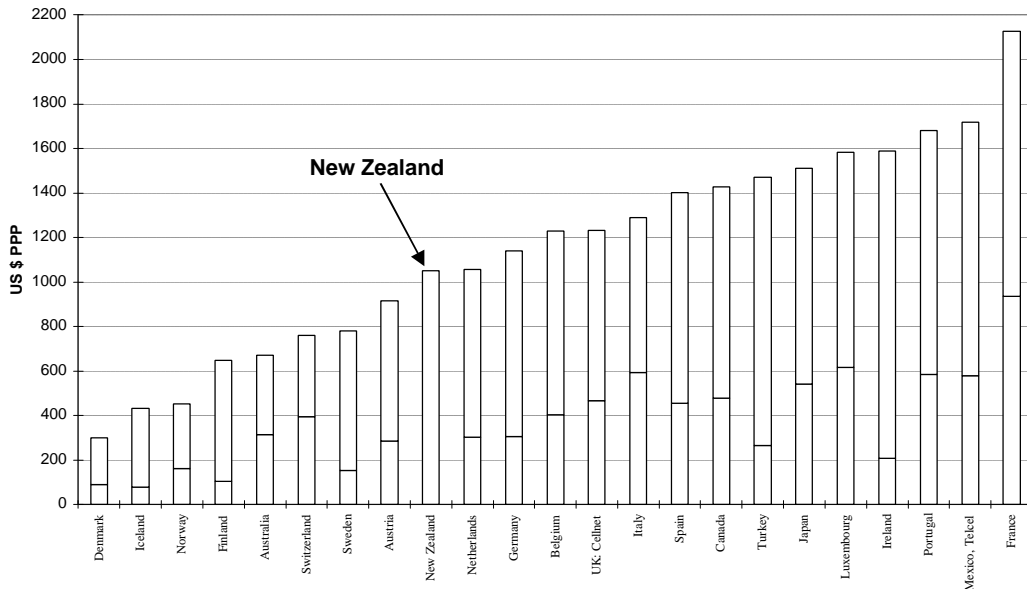


Note: The OECD model was rerun to include the latest business national call rates.

**OECD Basket of Mobile Service Tariff Comparisons**

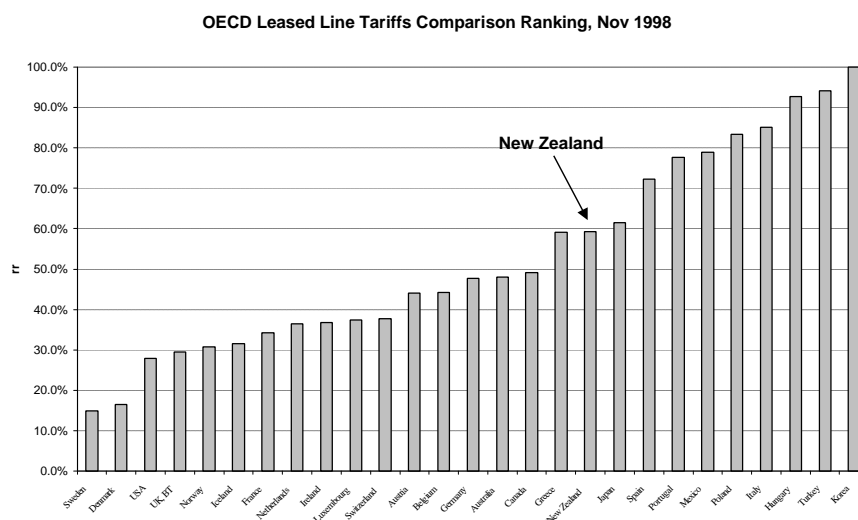
37. The following chart shows the comparative ranking of mobile telephone tariffs for OECD countries based on the OECD mobile tariff basket model. New Zealand is 9<sup>th</sup> out of 24 countries. Note: The New Zealand result is based on a tariff option which includes 200 minutes of free air time per month (the OECD model call basket comprises some 2100 calls per annum).

**OECD Mobile Basket Tariff Comparison - November 1998**



### OECD Basket of Leased Line Tariff Comparisons

38. The following chart shows the comparative ranking of leased line tariffs for OECD countries based on the OECD leased circuit line combined services basket model.



### 3.4 New Zealand Telecommunications Consumer Price Indexes

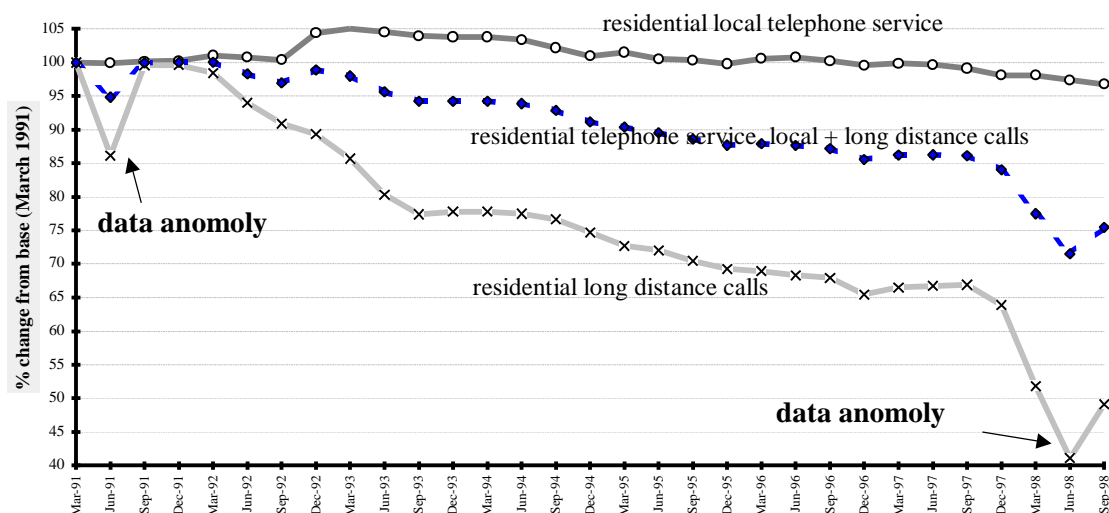
39. Statistics New Zealand residential telephone services consumer price index changes (in real terms) are shown in the graph below. This index comprises a basket of the following services: residential local telephone service including an installation component, national and international calls.

40. Notable features are:

- Long distance call prices have declined significantly. Since the establishment of long distance calls competition in March 1991, real prices have reduced on average by some 9% per annum (pa). In recent times it is apparent that price reductions are increasing. Over the last two years the average real price has reduced by about 14.5% pa which can probably be attributed to substantial entry in that time (at least five new nation wide service providers entered);
- The price of residential local telephone service and long distance calls declined on average by about 3.6% pa;
- The data indicates that the average real telephone access line rental and installation costs increased slightly but has declined progressively since late 1993.

(However, it should be noted that the real price of standard residential telephone service has not exceeded the November 1989 level, as required by Telecom's Kiwi Share obligations.)

### Statistics NZ real residential telephone service price index - percent change

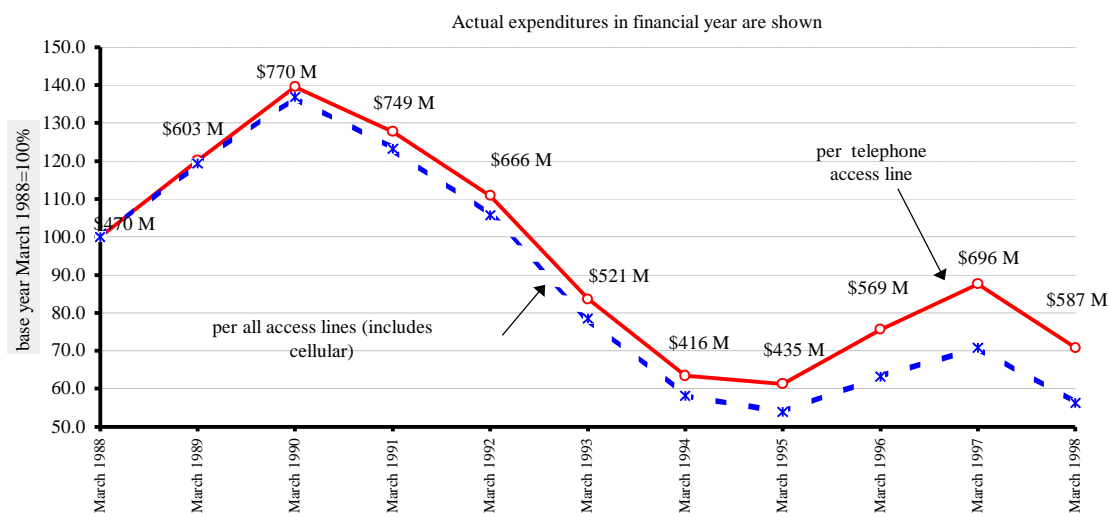


### 3.5 Telecommunications Capital Expenditure Statistics

41. The graph below shows Telecom's real average investment per telephone access line per annum on a relative basis. The base year for comparison is the financial year ended March 1988.

42. Telecom substantially updated many aspects of its core network infrastructure and associated services in the early 1990s. In recent times Telecom has invested substantially in expansion of its cellular network, information systems to support improved services and reduce operational costs, internet service access and cable TV roll out (now discontinued).

Trend in Telecom's real investment per access line per annum relative to March 1988



### 3.6 Interconnection

#### 3.6.1 Brief Summary of Main Interconnection Charges in New Zealand

(Note: All charges are GST exclusive)

##### Typical Toll Bypass Interconnection Charges

◆ **Telecom Charges for providing Toll Bypass service to Other Service Providers**

*Call origination and call termination (to and from the local point of interconnection)*

2.8 cents per minute or part of a minute (c/m) – peak (7am to 10pm everyday)

1.3 c/m - off-peak (10pm to 7am everyday).

*Automatic Number Information (ANI)*

1 cent for ANI supplied.

◆ **Other Interconnection Charge Options**

*Interconnection with Telecom’s network for national call origination and termination. The following charges apply in some cases.*

Call Volume (minutes of national calls in year one of agreement)	Cents per minute (all times of day and week)
10,000,000 - 19,999,999	13.0
20,000,000 - 29,999,999	11.0
30,000,000 - 39,999,999	9.0
40,000,000 - 99,999,999	8.5
100,000,000 or more	8.0

● **Other Network Service Providers Typical Charges For Providing Toll Bypass service to Telecom**

*Call origination and call termination (to and from the local point of interconnection)*

2.8 cents per minute or part of a minute (c/m) – peak (7am to 10pm everyday)

1.3 c/m - off-peak (10pm to 7am everyday).

*Automatic Number Information (ANI)*

1 cent for ANI supplied.

##### Typical Local Telephone Call Interconnection Charges

◆ **Telecom charges for providing local telephone call interconnection service to Other service providers**

2.0 cents per minute or part of a minute (c/m)- peak, everyday 7am - 10 pm

0.5 cents per minute or part of a minute (c/m)- off-peak, everyday 10pm - 7am

Additional charge for each call, 1.0 cents per minute or part of a minute (c/m)

◆ **Other Interconnect Service Providers charges for providing local telephone call interconnection service to Telecom**

For Agreement Period	Peak (c/m)	Off-peak (c/m)
Year 1	1.0	0.25
Year 2	1.25	0.3125
Year 3	1.5	0.375
Year 4	1.75	0.4375
Year 5	2.0	0.5

Note: Some interconnect agreements are for shorter terms, ie less than 5 years.

(Peak period - everyday 7am - 10 pm, off-peak everyday 10pm - 7am)

**Telephone Number Portability Charges**

Set-up fee \$17.50

Call conveyance fee for calls to numbers ported between networks, 0.5 cents per minute or part of a minute. (This is additional to any call interconnection charges).

**Calling Party Number Information (CPNI) Charge**

1 cent for CPNI supplied.

**3.6.2 List of Interconnect Agreements**

43. The following table lists all the significant telecommunications network interconnect agreements or in cases where no interconnect agreement was required the market entry date, from 1991 to December 1998:

Interconnect Agreement & [effective start date]	Main services supported	Expiry
Clear-Telecom long distance calls [March 1991]	Clear national and international calls ↔ <sup>16</sup> TNZ PSTN (some 85% coverage of TNZ originating)	Dec 1995
BellSouth-Telecom [August 1993] <sup>17</sup>	BS Cellular ↔ TNZ PSTN BS Cellular ↔ TNZ Cellular	Dec 1996 (In dispute)
TeamTalk-Telecom [March 1994]	TeamTalk Fleet Mobile ↔ TNZ PSTN	[March 1996] (Rolled over)
Clear-Telecom [May 1994]	Clear national and international calls ↔ TNZ PSTN (Extension to all new Zealand)	Dec 1995

<sup>16</sup> The arrow symbols represent in which direction of traffic the agreement applies.

<sup>17</sup> BellSouth says it terminated the 1993 Agreement as of March 1996, but continues to pay the rates set out in that agreement while negotiating towards a new agreement. Telecom says the agreement is still in force as it was not validly terminated. Both parties are presently negotiating a new interconnect agreement.

<b>Interconnect Agreement &amp; [effective start date]</b>	<b>Main services supported</b>	<b>Expiry</b>
	TNZ PSTN ⇒ Clear's 0800 service Telecom PSTN DDI provided to Clear using 9XX local numbers	
Clear-Telecom [1994]	Non-code Access to Clear long distance calls customers	Dec 1995
Late 1994: International call-back operators entered the market, without specific interconnect agreement.	International calls via call back facilities	
Global One - Telecom [29 March 1995]	TNZ PSTN ⇒ Sprint (International calls only)	March 1998
Clear-Telecom [18 March 1996] (Effective, 1 Jan 1996)	C PSTN ⇔ TNZ PSTN 0800 interconnection, both ways Clear ⇔ TNZ Cellular TNZ PSTN ⇔ Clear national and international	31 Dec 2000
Telecom-Telstra [25 June 1996]	TNZ PSTN ⇒ Telstra	
BellSouth-Clear [about August 1996]	BS Cellular ⇒ C PSTN BS Cellular ⇒ Clear ⇒ TNZ PSTN	
Telecom-Telstra [Nov 1996]	TNZ PSTN ⇒ Telstra (National call flat rate charge carriage \$0.09 c/m)	
Telecom-Global One [Nov 1996]	TNZ PSTN ⇒ To Global One (National call flat rate charge carriage \$0.13 c/m)	
TeamTalk-Telecom [Dec 1996]	TeamTalk Fleet Mobile ⇔ TNZ PSTN	
BellSouth-Telecom [February 1997]	Supply of calling party number information for use with CLI	Interim agreement
Telecom-Telstra [May 1997]	PSTN Number Portability	
Telecom-Saturn [June 1997]	Saturn PSTN ⇔ TNZ PSTN Saturn ⇔ TNZ Cellular (Note: Saturn will also require BellSouth and Clear network access)	
Telecom-Telstra [November 1997]	TNZ PSTN – Telstra intl, nat, local	
Telecom- BellSouth [February 1998]	TNZ PSTN- BellSouth cellular, nat, intl	
Telecom –Newcall [May 1998]	TNZ PSTN – Newcall intl, nat	

<b>Interconnect Agreement &amp; [effective start date]</b>	<b>Main services supported</b>	<b>Expiry</b>
Telecom-Worldxchange [September 1998]	TNZ PSTN – Worldxchange local, nat, intl and PSTN number portability	
Telecom- Compass [September 1998]	Telecom PSTN – Compass international/national	
Telecom- Superway [October 1998]	TNZ PSTN- Superway local, nat, intl, mobile 0800	
Telecom- Internet Group [December 1998]	TNZ PSTN- Internet Group local, nat, intl (may be IP ⇔ PSTN based)	

PSTN= Public Switched Telephone Network; TNZ=Telecom New Zealand;  
BS=BellSouth; C=Clear;

⇔ to and from; ⇒ one way.

44. Copies of Telecom’s interconnection agreements are available from Telecom New Zealand. These are required to be made publicly available under the Telecommunications (Disclosure) Regulations 1990. Interconnection agreements between other carriers are not required to be disclosed.

### **3.7 Pricing and Tariffs**

45. This section provides examples of pricing for some key telecommunications services in New Zealand for illustrative purposes.

#### **3.7.1 Local Telephone Service Pricing and Service Availability**

##### ***Business Telephone Service***

46. Telecom’s standard rates are in the following table. Some business telecommunications services users can typically qualify for up to a 10% discount on business telephone line rentals and call usage charges under Telecom’s premier plan. Discounts of 10% or over must be disclosed under New Zealand’s telecommunications information disclosure regulations.

<b>Telecom New Zealand Business Telephone Service</b>	<b>Per annum rental (exc GST)</b>
Standard business access line (analogue line)	\$701.04
City Access business access line	\$595.92
City Rate ISDN Basic Rate Access (2x64k)	\$1,344.00
Regional Rate ISDN Basic Rate Access (2x64k)	\$1,800.00
Local Call charges	Peak 4.55 cents/minute Off-peak 0.99 cents/minute

47. Saturn Communications offers business line rental for \$599.40 per annum (exc GST).

### ***Residential Telephone Service***

48. Standard Telecom local residential telephone service is \$36.34 per month (including GST). This includes unlimited local calls. Other options are available.

49. Saturn Communications offers a local residential telephone service for \$29.95 per month (includes unlimited local calls), available in Saturn's service areas in Wellington and the Kapiti Coast. Saturn offers a \$10 per month discount for subscriber who also take up their cable TV service (prices include GST at 12.5%).

### **3.7.2 National (toll) call pricing**

50. All service providers offer various specials to customers on a regular basis. The rates below are only intended to give an indication of pricing for direct dial national calls for residential customers.

TELECOM STANDARD RESIDENTIAL DIRECT DIAL NATIONAL CALL RATES (GST exclusive)

Time period	Rate per minute (depending on area band)
Peak (Weekdays 8am-6pm)	\$0.178, \$0.311, \$0.586, \$0.667
Off Peak (Weeknights 6pm-8am, weekends)	\$0.098, \$0.133, \$0.16, \$0.178

51. Clear and Telecom NZ offer \$5 capped weekend and weeknight rates available only to their respective residential direct dial national call customers. Saturn Communications offers a capped \$4.50 national call rate for its residential customers, for both peak and off-peak periods.

52. Telecom has also introduced two flat-fee options which provide residential customers with free off-peak calling into either a neighbouring local calling area or a more remote local calling area. The first, Favourite Place - Neighbouring Area, costs \$19.95 a month. The second, Favourite Place - New Zealand, costs \$29.95 a month

### WORLDXCHANGE BASIC RESIDENTIAL TARIFF STRUCTURE

53. Direct dial residential customers. Peak rate (Monday-Friday 8.00am-4.00pm) 20c-30c per minute. Off Peak rate (Mon-Fri 4.00pm-8.00am, all weekends) 16c-20c per minute.

### **3.7.3 Cellular Tariffs**

54. Telecom has a wide range of cellular plans for customers. The basic plan aimed at residential customers is \$15 per month access with call rates ranging from 20c-40c per minute for off-peak and \$1.79 peak (GST inclusive). See Telecom's web site for more information.

55. Telecom charges 71c per minute (GST inclusive) for a residential telephone customer to call a Telecom cellular phone in New Zealand.

56. Vodafone New Zealand also offers a range of cellular rental plans. A base offer offer is \$29.95 per month, which includes 200 minutes of off-peak calls (7pm-7am weekdays, all weekends and public holidays) calls anywhere in New Zealand. Other

calls cost 20c per minute and \$1.79 per minute for peak calls. Various other plans are available, refer to the Vodafone web site.

57. In New Zealand, cellular phone subscribers do not pay for calls received, only calls made.

### 3.7.4 International Tariffs

58. The international market is extremely competitive, with Telecom, Clear, Telstra, Global One, Worldxchange, Telegroup, Compass and Newcall among the companies offering service. No tariffs are supplied as prices change frequently and discounting and special deals are common, as companies react to the intense competition. Contact carriers for latest information on tariffs by route and special deals available (e.g. capped off peak rates for calling Australia \$10 and the US, UK, Canada and Ireland \$15 were offered by Telecom from late 1998).

### 3.8 Telecom's Kiwi Share Obligations

59. Since 1 November 1989, eight increases to residential rentals have been implemented. The telephone rentals (not including GST) are set out below.

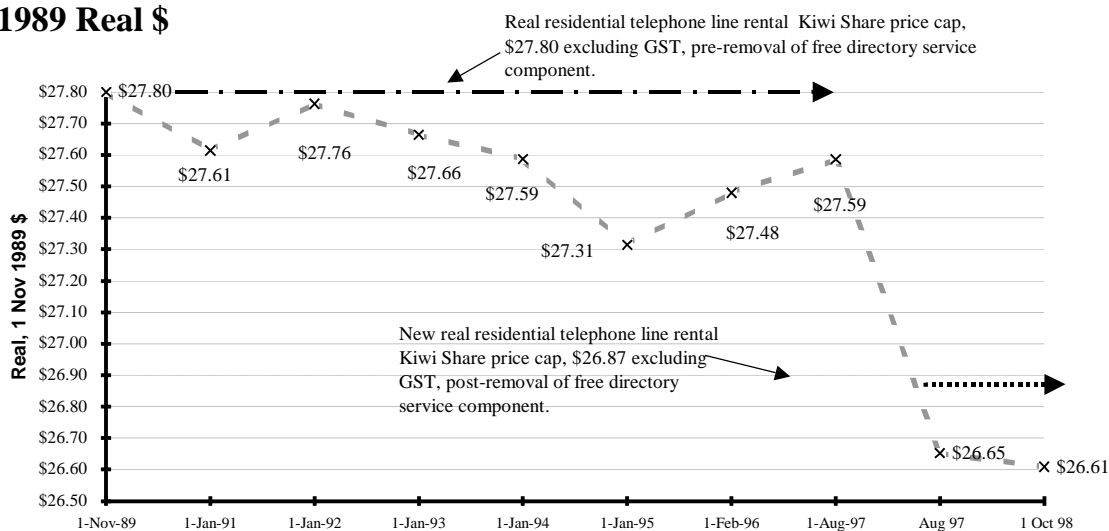
<u>Date of Change</u>	<u>New level</u>
1 November 1989	\$27.80
1 January 1991	\$29.19
1 January 1992	\$29.62
1 January 1993	\$29.91
1 January 1994	\$30.25
1 January 1995	\$30.79
1 February 1996	\$31.88
1 August 1997	\$32.81
1 August 1997 (post removal of free directory service component)	\$31.70 <sup>18</sup>
1 October 1998	\$32.30

60. The graph below shows that the real price of Telecom's standard residential telephone service rental (not including GST), has meet the requirements of the Kiwi Share obligations, as the real price has not exceeded the level charged on 1 November 1989.

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<sup>18</sup> Note: In August 1997, after obtaining the Government's agreement, Telecom reduced the standard residential telephone service option by \$1.25 (GST inclusive) in exchange for the withdrawal of the free directory service component and the introduction of a \$0.50 charge per residential user directory service inquiry.

## Telecom's Residential Telephone Service Rental Tariff, Nov 1989 Real \$



### 3.9 Residential Telephone Service Quality Indicators

61. When Telecom was privatised in 1990 and the price of residential telephone service was capped by the Kiwi Share requirements, there was some concern that residential telephone service standards might not be maintained. To address this concern Telecom agreed in May 1990 to a request from the Minister of Consumer Affairs, to voluntarily publish indicators of the quality of the residential telephone service, on a half yearly basis, via media releases and in company reports.

62. Ten telephone service indicators were initially agreed upon which included service connection times, fault incidence, operator response times, SPC exchange availability, payphone availability and billing disputes. The objective was to provide residential customers with a clear understanding of Telecom's telephone service performance, and provide a safeguard against declining service standards.

63. These initial indicators showed improved performance from 1990 up to about 1993. There was then a small decline in fault clearance times. Telecom attributed the decline to one-off factors, including unusually high rainfall and associated flooding, along with severe electrical storms in some areas and problems arising with the centralisation of all Telecom telephone service fault reporting in the Auckland area.

64. In 1995 the Ministry of Consumer Affairs, in conjunction with Telecom, reviewed the adequacy of the quality of service indicators and a set of new indicators was agreed. The new set of indicators and recent performance follow:

(Residential telephone service requests = SRs)

	Oct 95- Mar 96	Apr 96- Sept 96	Oct 96- Mar 97	Apr 97- Sept 97	Oct 97- Mar 98	Apr 98- Sept 98
Percentage of SRs that meet requested installation time	94	93.3	90.8	90.1	87.7	89.3
Percentage of 'intact' SRs completed within 24 hours of request	96	95.8	95.5	96.8	96.9	96.4
Percentage of 'intact' SRs not completed within 48 hours of request	0.7	0.7	0.8	0.7	0.8	0.7
Percentage of SRs outstanding 96 hours after requested time	0.7	1.0	1.5	1.7	1.5	0.9
Faults per 100 residential circuit ends	41	46	41.4	43.8	41.3	46
Percentage of repair commitments that meet the customer's request	78	80	80	80	82	84
Percentage of faults cleared within 24 hours	60	54	60	59	67	70
Percentage of faults outstanding after 96 hours	3	7.1	3.3	4.9	2.9	2.7
Call minutes lost in electronic exchange outages	52	27	12	211	54	656
Number of written residential escalated complaints	649	1130	951	982	1063	1168
The percentage of (correct residential telephone white page listings / total listings)	99.96	99.95	99.95	99.97	99.94	99.98
Number of party-lines	960	808	661	258	251	228
Average directory assistance answering time (seconds)	10.6	10.5	20	11.1	6.7	4.8
Average time taken to handle directory assistance calls (seconds);	33	33	32	31	29	28
Availability of electronic payphones (%)	98	97.7	97.9	98.4	98.2	98.6

65. The residential telephone service quality of service indicators generally indicate that service quality has improved.

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#### 4. ANNEX I

##### **LIST OF REGISTERED NETWORK OPERATORS (made pursuant to the Telecommunications Act 1987)<sup>19</sup>**

###### Effective

Telecom New Zealand Ltd	April 1989
Clear Communications Ltd	November 1990
Vodafone New Zealand	June 1991
Trans Power New Zealand Ltd	August 1992
New Zealand Rail Ltd	March 1993
Capital Networks Holdings Ltd	July 1996
Globalstar New Zealand Ltd	April 1997
University of Canterbury	February 1998
Telstra New Zealand Ltd	March 1998
The Internet Group Ltd	December 1998

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<sup>19</sup> Please note that this list does not include entities which have been granted network operator designation for the purposes of providing facilities for broadcasting.

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## 5. ANNEX II

### **LIST OF REGISTERED INTERNATIONAL OPERATORS(made pursuant to the Telecommunications (International Services) Regulations 1994)**

Global One Communications Ltd	27 March 1995
Telecom New Zealand Ltd	1 May 1995
Optus Networks Pty Ltd	1 May 1995
Clear Communications Ltd	1 May 1995
Vodafone New Zealand	1 May 1995
Asia Pacific Telecom (NZ) Ltd	27 July 1995
Telstra (NZ) Ltd	19 September 1995
WorldxChange Ltd	27 October 1995
Pacific Gateway Exchange New Zealand Ltd	3 May 1996
Voyager New Zealand Ltd	13 January 1997
Telegroup Network Services NZ Ltd	23 April 1997
Compass Communications Ltd	1 August 1997
NewCall Communications Ltd	12 September 1997
Northgate Communications Australia-New Zealand Pty Ltd	18 December 1997
Facilicom International LLC Ltd	18 March 1998
The Internet Group Ltd	22 October 1998
City Telecom (New Zealand) Ltd	8 December 1998
Startec Global Communications UK Ltd	8 December 1998
Hong Kong Telecommunications (Pacific) Ltd	1 January 1999