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*Parties*

**TE RŪNANGA O NGĀI TAHU**

*and*

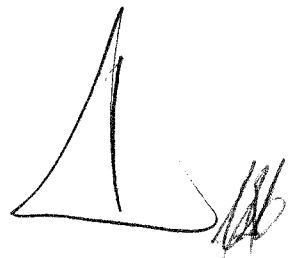
**HER MAJESTY THE QUEEN**

in right of New Zealand

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**DEED OF SETTLEMENT**  
**SECTION 18**

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## SECTION 18

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## **ATTACHMENT 18.1 EXAMPLE OF OPERATION OF SECTION 18**

*(Clause 18.9)*

## SECTION 18: RELATIVITY MECHANISM

### 18.1 INTERPRETATION

#### 18.1.1 Definitions

In this Section, unless the context otherwise requires:

*Additional Ngāi Tahu Redress Amount* means the sum of any payments made pursuant to *clause 18.4* and any other redress provided by the Crown to Te Rūnanga in respect of the Ngāi Tahu Claims in addition to the redress referred to in *clause 2.3.1*;

*Agreed Relativity Percentage* means the Real Value of the Ngāi Tahu Redress Amount divided by \$1,000 million expressed as a percentage, with the Real Value of the Ngāi Tahu Redress Amount being calculated for this purpose as if all instalments of the amount referred to in *clause 18.1.2(b)(ii)* had been expensed in the Crown's financial statements in the Crown Financial Year which ended on 30 June 1997;

*Claim Redress Amount* in respect of any Historical Claim (other than those referred to in *clause 18.1.2(a)* and *clause 18.1.2(b)*) means the greater of:

- (a) the amounts expensed by the Crown in respect of the redress provided for the relevant Historical Claim as shown in the Crown's financial statements for the relevant year, as certified by the Audit Office; and
- (b) the amount of redress recorded in the deed of settlement or equivalent settlement document for the relevant Historical Claim.

However, the following amounts shall be excluded from the Claim Redress Amount:

- (i) payment of interest at Government Stock or similar commercial rates;
- (ii) any redress which is of a nature that a commercial value is not normally attributed to it (for example, a right to participate in the management of publicly owned assets, or a right of first refusal over assets);
- (iii) any *ex gratia* payments made by the Crown to non-claimant land owners for property purchased to settle a Historical Claim and all payments made by the Crown to non-claimants by way of compensation for loss of repurchase rights or other rights in respect of property transferred to, or other redress provided to, the claimant or claimants to settle a Historical Claim;

- (iv) any expenditure or benefit provided by the Crown to the claimant or claimants by way of gift (including the return of Wāhi Tapu) except to the extent that its value exceeds the greater of 5% of the total redress provided to the donee or \$2,000,000 adjusted to reflect any movements in the CPI in the period between the end of the quarter immediately before the date of the gift and 31 December 1994;
- (v) any redress provided by the Crown where the redress is returned to the Crown by the claimant or claimants by way of gift;
- (vi) any costs incurred by the Crown in the course of the negotiation of, and the effecting of, the settlement of the Historical Claim;
- (vii) any amount paid to indemnify claimants against any GST or any income tax paid by the claimants;
- (viii) any loan by the Crown to claimants on commercial arms-length terms;
- (ix) any other item of redress which is similar in nature to any redress provided to Waikato or Te Rūnanga which was not included in the Ngāi Tahu Redress Amount or the Waikato Redress Amount (as defined in the Waikato Deed); and
- (x) any Additional Ngāi Tahu Redress Amount and any additional redress provided to Waikato under the relativity provision in the Waikato Deed or any equivalent payments made to any other claimants under relativity provisions (if any) agreed with such claimants which are similar to this Section;

*Corporate Tax Rate* means the rate of income tax payable by New Zealand resident companies on their assessable income under New Zealand tax legislation in the relevant year. Where that rate changes during the relevant year, the Corporate Tax Rate will be the average of the rates calculated by reference to the proportion of the year for which each rate applied during that year;

*CPI* means the consumers price index (All Groups) published by Statistics New Zealand (or any successor body or organisation) on a quarterly basis. If such index ceases to be published or the basis of calculation of the index is fundamentally changed so as to make it inappropriate in the circumstances, then "CPI" will mean such index as the Crown and Te Rūnanga may agree, or failing such agreement, as may be determined by an independent expert with appropriate qualifications and expertise appointed for the purpose by the Crown and Te Rūnanga or, failing agreement between the Crown and Te Rūnanga, by the

President for the time being of the Institute of Chartered Accountants of New Zealand or its successor;

*Crown Financial Year* means the period of one year ending on 30 June in any calendar year. Thus *Crown Financial Year T* means the Crown Financial Year ending on 30 June of calendar year T. Similarly for Crown Financial Years n and k;

*Government Stock Rate* for a Crown Financial Year means the average of the monthly average 5 year Government Bond Yield Rates reported by the Reserve Bank of New Zealand in the Reserve Bank Bulletin for the months of December and January in that Crown Financial Year. If for any reason the Reserve Bank of New Zealand discontinues the reporting of such rates, then the Government Stock Rate will be the nearest possible equivalent, based on yields reported by an independent agency. If there is any dispute between the parties as to the appropriate alternative method of determining the Government Stock Rate, the dispute will be referred for determination to an independent expert with appropriate qualifications and expertise appointed for the purpose by the Crown and Te Rūnanga or, failing agreement, by the President for the time being of the Institute of Chartered Accountants of New Zealand, or its successor;

*Historical Claim* means a claim submitted to the Waitangi Tribunal or its successor body or otherwise made against the Crown on the basis of the principles of the Treaty of Waitangi which arises from any act or omission of the Crown that occurred on or before 21 September 1992;

*Ngāi Tahu Redress Amount* means the aggregate of \$10,000,000 paid by the Crown to Te Rūnanga pursuant to the Deed of On Account Settlement and \$160,000,000 to be provided by the Crown pursuant to this Deed;

*Present Value:*

- (a) in respect of the redress provided for the claims referred to in *clause 18.1.2(a)*, as at 31 December 1994, will be treated as \$355,318,314; and
- (b) in respect of the Total Redress Amount, for each Crown Financial Year (from 1996 to 2044 inclusive), such Crown Financial Year being referred to as Crown Financial Year T, the following calculations are to be performed to determine the Present Value as at 31 December 1994 of the Total Redress Amount up to and including that Crown Financial Year T:
  - (i) first, for each Crown Financial Year from 1996 to T inclusive, each such Crown Financial Year being referred to as n (so that n is from

Crown Financial Year 1996 to T inclusive) calculate the Present Value as at 31 December 1994 of the Total Annual Redress Amount for that Crown Financial Year n, according to the following formula:

$$PV(TAR_n) = \left[ \frac{TAR_n}{CPI_n / CPI_{1995}} \right] \times \left[ \frac{1}{\prod_{k=1995}^{n-1} \{ 1 + r_k (1 - t_k \times 0.75) \}} \right]$$

and

- (ii) then calculate the Present Value as at 31 December 1994 of the Total Redress Amount up to and including Crown Financial Year T according to the following formula:

$$PV \left( \begin{array}{l} \text{Total Redress Amount} \\ \text{up to and including} \\ \text{Crown Financial Year T} \end{array} \right) = PVC + \sum_{n=1996}^T PV(TAR_n)$$

The symbols used in the above formulas have the following meanings:

PV( ) = Present Value as at 31 December 1994 of the term in ( )

TAR<sub>n</sub> = Total Annual Redress Amount in Crown Financial Year n

CPI<sub>n</sub> = CPI figure as at 31 December of Crown Financial Year n, which ends on 30 June of calendar year n (i.e. the CPI figure as at 31 December of calendar year (n-1)).  
Similarly for CPI<sub>k</sub>, CPI<sub>k+1</sub> and CPI<sub>1995</sub>

$$r_k = \left[ \frac{(1 + R_k)}{(CPI_{k+1} / CPI_k)} \right] - 1$$

R<sub>k</sub> = Government Stock Rate in Crown Financial Year k, which ends on 30 June of calendar year k

t<sub>k</sub> = Corporate Tax Rate in calendar year k

∏ = standard mathematical notation for a multiplicative series

∑ = standard mathematical notation for an additive series

PVC = Present Value as at 31 December 1994 of claims referred to in *clause 18.1.2(a)*, being \$170,000,000 plus \$185,318,314, equalling \$355,318,314;

*Real Value:*

- (a) in respect of the redress provided for the claims referred to in *clause 18.1.2(a)*, as at 31 December 1994 will be treated as \$355,318,314;
- (b) in respect of the Ngāi Tahu Redress Amount, will be treated as the aggregate of:
- (i) \$10,000,000 deflated to reflect any movements in the CPI in the period from 31 December 1994 to 31 December 1995; and
- (ii) the instalments of the remaining \$160,000,000 each deflated to reflect any movement in the CPI in the period from 31 December 1994 to 31 December in the Crown Financial Year within which such instalment is expensed in the Crown's financial statements;
- (c) in respect of the Total Redress Amount, for any Crown Financial Year (from 1996 to 2044 inclusive) where *clause 18.4* requires the Real Value of the Total Redress Amount to be calculated up to and including such Crown Financial Year, such Crown Financial Year being referred to as Crown Financial Year T, the following calculations are to be performed:
- (i) first, for each Crown Financial Year from 1996 to T inclusive, each such Crown Financial Year being referred to as n (so that n is from Crown Financial Year 1996 to T inclusive), calculate the Real Value as at 31 December 1994 of the Total Annual Redress Amount for that Crown Financial Year n according to the following formula:

$$RV(TAR_n) = \frac{TAR_n}{CPI_n / CPI_{1995}}$$

where:

RV( ) = real value as at 31 December 1994 of the term in ( )

and other terms are as defined above; and

- (ii) then calculate the Real Value as at 31 December 1994 of the Total Redress Amount up to and including Crown Financial Year T according to the following formula:

$$RV \left( \begin{array}{l} \text{Total Redress Amount} \\ \text{up to and including} \\ \text{Crown Financial Year T} \end{array} \right) = PVC + \sum_{n=1996}^T RV(TAR_n)$$

and

- (d) in respect of any Additional Ngāi Tahu Redress Amounts, for any Crown Financial Year (from 1996 to 2044 inclusive) where *clause 18.4* requires the Real Value of the Additional Ngāi Tahu Redress Amounts to be calculated up to and including such Crown Financial Year, such Crown Financial Year being referred to as Crown Financial Year T, the following calculations are to be performed:

- (i) first, for each Crown Financial Year from 1996 to T inclusive, each such Crown Financial Year being referred to as n (so that n is from Crown Financial Year 1996 to T inclusive), calculate the Real Value as at 31 December 1994 of any Additional Ngāi Tahu Redress Amount in that Crown Financial Year n according to the following formula:

$$RV(AR_n) = \frac{AR_n}{CPI_n / CPI_{1995}}$$

where:

$AR_n$  = Additional Ngāi Tahu Redress Amount deemed to have been provided in Crown Financial Year n

and other terms are as defined above; and

- (ii) then calculate the Real Value as at 31 December 1994 of any Additional Ngāi Tahu Redress Amounts up to and including Crown Financial Year T according to the following formula:

$$RV \left( \begin{array}{l} \text{Additional Ngai Tahu} \\ \text{Redress Amounts} \\ \text{up to and including} \\ \text{Crown Financial Year T} \end{array} \right) = \sum_{n=1996}^T RV(AR_n)$$



*Receipt Date* means, in respect of any Additional Ngāi Tahu Redress Amount or any component of the Total Redress Amount, the date on which it is deemed to be provided under *clause 18.1.2*;

*Total Annual Redress Amount* means the sum of the Claim Redress Amounts deemed to be provided within a Crown Financial Year;

*Total Redress Amount* means the aggregate of the Total Annual Redress Amounts in respect of Historical Claims (including the redress referred to in *clause 18.1.2(a)* and *clause 18.1.2(b)*);

*Waikato* means the party to the Waikato Deed other than the Crown;

*Waikato Deed* means the Deed of Settlement dated 22 May 1995 between the Crown and Waikato.

### **18.1.2 Date of Redress**

For the purposes of calculating Real Value or Present Value:

- (a) the redress provided for the fisheries claims settled by the Deed of Settlement between the Crown and Māori signed on 23 September 1992, the \$170,000,000 redress provided to Waikato under the Waikato Deed and the redress provided for all other Historical Claims settled between 23 September 1992 and 30 June 1995 will be deemed to have been provided on 31 December 1994;
- (b) the Ngāi Tahu Redress Amount will be deemed to have been provided as follows:
  - (i) the \$10,000,000 paid by the Crown pursuant to the Deed of On Account Settlement will be deemed to have been provided on 31 December 1995; and
  - (ii) each instalment of the remaining \$160,000,000 will be deemed to have been provided on 31 December in the Crown Financial Year in which the Crown treats such instalment as having been incurred for the purposes of the Crown's financial statements under generally accepted accounting principles;
- (c) any Claim Redress Amounts (other than those referred to in *clause 18.1.2(a)* and *clause 18.1.2(b)*) will be deemed to have been provided on 31 December in the first Crown Financial Year in which the Crown treats the

cost of the redress as having been incurred for the purposes of the Crown's financial statements under generally accepted accounting principles; and

- (d) any Additional Ngāi Tahu Redress Amount paid in accordance with *clauses 18.3 and 18.4* will be deemed to have been provided on 31 December in the Crown Financial Year T referred to in *clauses 18.2, 18.3 and 18.4*.

### 18.1.3 Principles

In assessing whether any expenditure or provision of benefits by the Crown constitutes the provision of redress for an Historical Claim, and should therefore be categorised as a Claim Redress Amount, the following principles shall be applied:

- (a) the expenditure or benefits will be treated as the provision of redress for an Historical Claim if there is a transfer of value from the Crown to one or more persons who have made an Historical Claim (or a transfer of value from the Crown to another person with the intention and effect of benefiting the person or persons who have made the Historical Claim) in consideration of the settlement of that Historical Claim or contingent upon the settlement of that Historical Claim; and
- (b) any expenditure or benefits which can reasonably be regarded as having been provided for the purpose of "good government" and not under Article II of the Treaty of Waitangi will not be treated as the provision of redress for an Historical Claim. The following factors will be taken into account in determining whether expenditure is for the purposes of "good government":
- (i) the expenditure or benefits are provided by the Crown to Māori or to all citizens or generic groups of citizens of New Zealand on a basis which provides for Ngāi Tahu to claim a fair share (including but not limited to any change or development of Article II rights after 1994 or any change in property rights made by statute or regulation which confer rights on Māori) and such expenditure or benefits are not for the express purpose of settling an Historical Claim;
- (ii) the Crown retains a discretion over the amount and form of the provision of the expenditure or benefits and their continued availability;
- (iii) the recipients of the expenditure or benefits are accountable to the Crown for the use or distribution of the amount of the expenditure or benefits; and

- (iv) the expenditure or benefits arise from any legislative or regulatory change made in the course of ‘good government’, including those designed to remove or avoid any contemporary breach of the principles of the Treaty of Waitangi, and such expenditure or benefits are not for the express purpose of settling an Historical Claim;

Nothing in this *clause 18.1.3* limits or affects the exclusions referred to in the definition of “Claim Redress Amount” in *clause 18.1.1*.

## 18.2 CALCULATION

The Crown shall calculate on or about 30 September in each year from 1996 to 2044 inclusive the Present Value of the Total Redress Amount for Receipt Dates up to the end of the preceding Crown Financial Year (which is referred to subsequently as Crown Financial Year T) and provide to Te Rūnanga a statement setting out such calculation and providing details of the Claim Redress Amounts which comprise the Total Annual Redress Amounts and the identity of the relevant claimants within 20 Business Days of the calculation being made. If Te Rūnanga disputes that calculation it shall notify the Crown within 40 Business Days after the date on which the statement is provided to Te Rūnanga. If it does not do so it will be deemed to have accepted the calculation. In addition, the Crown’s statement under this clause shall set out the Crown’s view as to whether the grounds for a claim for further redress to be payable under *clause 18.4* exist and, if so, its calculation of the amount but this requirement will not apply if no claim to further redress is permitted under *clause 18.5* at the time the statement is given.

## 18.3 CLAIM

If, in respect of the calculation in *clause 18.2*, involving Crown Financial Years up to and including Crown Financial Year T, Te Rūnanga believes that the Present Value of the Total Redress Amount up to and including Crown Financial Year T exceeds \$1,000 million, then, subject to *clause 18.5*, Te Rūnanga may claim further redress from the Crown pursuant to *clause 18.4*. However, Te Rūnanga shall not make a claim which would involve it disputing the Crown’s calculations under *clause 18.2* if it has previously accepted or has been deemed to have accepted that calculation.

## 18.4 FURTHER REDRESS

If Te Rūnanga makes a claim pursuant to *clause 18.3*, and the Present Value of the Total Redress Amount up to and including Crown Financial Year T exceeds \$1,000 million, then the Crown shall pay to Te Rūnanga such further sum as is necessary to ensure that the sum of the Real Value of the Ngāi Tahu Redress Amount, and the Real Value of any Additional Ngāi Tahu Redress Amounts up to and including Crown Financial Year T, is the Agreed Relativity Percentage of the

Real Value of the Total Redress Amount up to and including Crown Financial Year T. The sum to be paid shall be further adjusted for CPI movements from 31 December in Crown Financial Year T to the end of the quarter immediately before the payment is made.

## 18.5 TIME LIMIT ON CLAIMS

Te Rūnanga may make a claim under *clause 18.3* on more than one occasion, but no claim may be made within 5 years of the 30 September date in *clause 18.2* giving rise to a payment under *clause 18.4*, and no claim may be made after the end of 2044, but nothing in this clause shall prevent a claim being made in 2044.

## 18.6 PAYMENT

### 18.6.1 Crown Statement

If Te Rūnanga makes a claim under *clause 18.3*, the Crown will, within 20 Business Days after the claim is made, provide to Te Rūnanga a statement indicating whether any amount is payable under *clause 18.4* and, if so, how much that amount is. This requirement will not apply if the amount claimed by Te Rūnanga is the same as that specified in the most recent statement provided by the Crown under *clause 18.2*.

### 18.6.2 Payment by Crown

If the Crown's statement under *clause 18.6.1* (or under *clause 18.2*, where no statement under *clause 18.6.1* is required) indicates that any amount is payable to Te Rūnanga under *clause 18.4*, the Crown shall pay that amount by the date which is the later of:

- (a) 40 Business Days after the date of the statement referred to above; and
- (b) if an appropriation is required, as soon as practicable after the appropriation is made,

but in any event not more than 6 months after the date of the statement referred to above.

## 18.7 DISPUTES

If the amount specified in the Crown's statement in *clause 18.6.1* is different from the amount claimed by Te Rūnanga or Te Rūnanga otherwise disputes the amount payable, then:

- 18.7.1 the parties will endeavour to resolve the dispute amicably and will undertake good faith negotiations to that end. If the dispute cannot be resolved by negotiation within 20 Business Days of Te Rūnanga first disputing the amount payable and both parties agree to resolution by

mediation, arbitration, reference to an expert or other alternative dispute resolution process then the matter will be resolved by the means agreed by the parties at the time. If the parties cannot agree on a method of resolution of a dispute, either party may exercise its legal rights against the other; and

- 18.7.2 the Crown will pay the amount not in dispute as required under *clause 18.6.2* and, if it is finally determined that a further amount is payable, will pay such amount within 10 Business Days after the date on which the determination is made or, if a further appropriation is required, as soon as practicable after the appropriation is made but, in any event, not more than 6 months after the date on which the determination is made. There is no agreement as to whether interest is or is not payable.

### **18.8 CHANGE IN CROWN FINANCIAL YEAR**

If, during the period between the date of this Deed and the end of 2044, the Crown changes its balance date, the parties will make such adjustments to this *Section 18* as are required to ensure that the provisions of this *Section 18* can be applied practically and in a manner which makes neither party better off nor worse off. If there is any dispute between the parties as to the necessary adjustments, the dispute will be referred for determination to an independent expert with appropriate qualifications and expertise appointed for the purpose by the Crown and Te Rūnanga or, failing agreement, by the President for the time being of the Institute of Chartered Accountants of New Zealand, or its successor.

### **18.9 EXAMPLE**

The example in *Attachment 18.1* is included in this Deed as an illustration of the operation of this *Section 18*.

**ATTACHMENT 18.1**  
**EXAMPLE OF OPERATION OF SECTION 18**

*(Clause 18.9)*

**1 Introduction**

This example illustrates the application of *Section 18*, using an assumed payment stream and other assumed parameters. It is stressed that all parameters are purely illustrative and do not reflect the views of either party about their values. In addition, the calculations do not involve any rounding, although the presentation of calculations involves some suppression of decimal points.

The examples are to cover the first additional redress payment arising under the mechanism, and the second payment 5 years later. The examples show the calculation of the “Present Value of the Total Redress Amount”, the “Real Value of the Total Redress Amount” and the calculation of each of the first two illustrative additional redress payments to Te Rūnanga.

**2 Assumptions**

For the purposes of this example, it is assumed that:

- (a) the Total Annual Redress Amounts (TAR) are as shown in *Table A*;
- (b) CPI values for the commencement of calendar years are as shown in *Table B*;
- (c) the nominal Government Stock Rates for Crown Financial Years, which “centre” on 31 December in a Crown Financial Year and are used to discount back over the following calendar year (see *Figure 1*), are shown in *Table B*;
- (d) the Corporate Tax Rates for calendar years are as shown in *Table B*;
- (e) the “Real Value” of the “Ngāi Tahu Redress Amount” is \$180m (purely for the purposes of illustration); and
- (f) the “Agreed Relativity Percentage” is 18.2% (purely for the purposes of illustration).

**3 Application of Section 18**

The clauses in *Section 18* applied in this example are *clauses 18.2, 18.3, 18.4 and 18.5*.

Following *clause 18.2*, the first calculation is performed around 30 September 1996, and this is now discussed.

**(a) Calculations Performed Around 30 September 1996 (T = 1996)**

Following *clause 18.2*, we seek to determine the Present Value as at 31 December 1994 of the Total Redress Amount up to and including Crown Financial Year 1995/96 (CFY 96). From paragraph (b) of the definition of "Present Value" in *clause 18.1.1*:

$$PV \left( \begin{array}{c} \text{Total Redress Amount} \\ \text{up to and including} \\ \text{CFY 96} \end{array} \right) = \$355.318\text{m} + PV(\text{TAR}_{96})$$

and

$$PV(\text{TAR}_{96}) = \left[ \frac{\text{TAR}_{96}}{\text{CPI}_{1996} / \text{CPI}_{1995}} \right] \times \left[ \frac{1}{1 + r_{95} (1 - t_{95} \times 0.75)} \right] \quad [\text{equation (1)}]$$

and

$$\begin{aligned} r_{95} (1 - t_{95} \times 0.75) &= \left[ \frac{(1 + R_{95})}{(\text{CPI}_{1996} / \text{CPI}_{1995})} - 1 \right] \times [1 - t_{95} \times 0.75] \quad [\text{equation (2)}] \\ &= \left[ \frac{1.07}{1.02} - 1 \right] \times [1 - 0.33 (0.75)] \\ &= 0.0368872 \end{aligned}$$

This "real discount rate" is reported in *Table B* for the calendar year 1995.

$$\begin{aligned} \text{So} \quad PV(\text{TAR}_{96}) &= \left[ \frac{\$100\text{m}}{1.02} \right] \times \left[ \frac{1}{1.0368872} \right] \\ &= \$94.551\text{m} \end{aligned}$$

and so

$$\begin{aligned} \text{PV} \left( \begin{array}{l} \text{Total Redress Amount} \\ \text{up to and including} \\ \text{CFY 96} \end{array} \right) &= \$355.318\text{m} + \$94.551\text{m} \\ &= \$449.869\text{m} \qquad \qquad \qquad \text{[equation (3)]} \end{aligned}$$

The last two calculated numbers, \$94.551m and \$449.869m, are each shown in their appropriate column in *Table A*.

At this point reference to *Figure 1* may be useful. The Total Annual Redress Amount in CFY 96, denoted  $\text{TAR}_{96}$ , is deemed to arise at 31.12.95. Thus, to convert it to its real dollar value at 31.12.94, one uses the CPI index at 31.12.95 (denoted  $\text{CPI}_{1996}$ ) and that at 31.12.94 (denoted  $\text{CPI}_{1995}$ ). This is the first term [ $\cdot$ ] in equation (1). This real dollar value is then discounted back to 31.12.94 by the “real post tax interest rate” for the 1995 calendar year. To generate this “real post tax interest rate”, one uses the nominal interest rate for this calendar year ( $R_{95}$ , averaged over a time span of one year but centred on 31.12.94), the corporate tax rate  $t_{95}$  over this calendar year, and the CPI index values at the beginning and end of this calendar year (denoted  $\text{CPI}_{1995}$  and  $\text{CPI}_{1996}$ ). This is reflected in equation (2).

We now turn to *clause 18.3*. Following *clause 18.3*, we ask if:

$$\text{PV} \left( \begin{array}{l} \text{Total Redress Amount} \\ \text{up to and including} \\ \text{CFY 96} \end{array} \right) > \$1,000\text{m?} \qquad \qquad \qquad \text{[equation (4)]}$$

Referring back to equation (3), we find that this condition is not satisfied. So no claim under *clause 18.3* arises at 30 September 1996. The following year, the calculations will be performed again, as follows:

**(b) Calculations Performed Around 30 September 1997 (T=1997)**

Following *clause 18.2* again, we now seek to determine the Present Value as at 31 December 1994 of the Total Redress Amount up to and including CFY 97. From paragraph (b) of the definition of “Present Value” in *clause 18.1.1*:

$$\text{PV} \left( \begin{array}{l} \text{Total Redress Amount} \\ \text{up to and including} \\ \text{CFY 97} \end{array} \right) = \$355.318\text{m} + \$94.551\text{m (as above)} + \text{PV}(\text{TAR}_{97})$$



## EXAMPLE OF OPERATION OF SECTION 18

and

$$\begin{aligned}
 PV(TAR_{97}) &= \left[ \frac{TAR_{97}}{CPI_{1997} / CPI_{1995}} \right] \times \left[ \frac{1}{1 + r_{95} (1 - t_{95} \times 0.75)} \right] \times \left[ \frac{1}{1 + r_{96} (1 - t_{96} \times 0.75)} \right] \\
 &= \left[ \frac{\$300m}{1.0404} \right] \left[ \frac{1}{1.0368872} \right] \left[ \frac{1}{1.0368872} \right] \\
 &= \$268.199m
 \end{aligned}$$

with the “real discount rates” used here being taken from *Table B* for the 2 calendar years separating 31 December 1994 from  $TAR_{97}$ , i.e. calendar years 1995 and 1996 (see *Figure 1*). Thus

$$\begin{aligned}
 PV \left( \begin{array}{l} \text{Total Redress Amount} \\ \text{up to and including} \\ \text{CFY 97} \end{array} \right) &= \$355.318m + \$94.551m + \$268.199m \\
 &= \$718.069m
 \end{aligned}$$

and this figure is now shown in the last column of *Table A*.

Following *clause 18.3*, we again refer to equation (4) (except that CFY 96 becomes CFY 97). Again the condition is not satisfied and so no claim under *clause 18.3* arises at 30 September 1997.

**(c) Calculations Performed Around 30 September 1998 (T=1998)**

In the same way as before, the Present Value calculation is performed around 30 September 1998. As shown in the last column of *Table A*, the result is

$$PV \left( \begin{array}{l} \text{Total Redress Amount} \\ \text{up to and including} \\ \text{CFY 98} \end{array} \right) = \$887.126m$$

Following *clause 18.3*, we again refer to equation (4) (except that CFY 96 becomes CFY 98). Again the condition is not satisfied. So no claim arises around 30 September 1998.

**(d) Calculations Performed Around 30 September 1999 (T=1999)**

Following the above pattern the result of the Present Value calculation performed around 30 September 1999 is shown in the last column of *Table A*, i.e.:

$$PV \left( \begin{array}{l} \text{Total Redress Amount} \\ \text{up to and including} \\ \text{CFY 99} \end{array} \right) = \$1,007.011\text{m}$$

Following *clause 18.3*, we again refer to equation (4) (except that CFY 96 becomes CFY 99). Now, for the first time, the condition is satisfied. So a claim for further redress can be made in accordance with *clause 18.4*. The prospective payment, deemed to be made on 31 December 1998, will be denoted \$X.

Following *clause 18.4*, we must now calculate the Real Value as at 31 December 1994 of the Total Redress Amount up to and including CFY 99. From paragraph (c) of the definition of "Real Value" in *clause 18.1.1* this is

$$\begin{aligned} RV \left( \begin{array}{l} \text{Total Redress Amount} \\ \text{up to and including} \\ \text{CFY 99} \end{array} \right) &= \$355.318\text{m} + \frac{\$100\text{m}}{1.02} + \frac{\$300\text{m}}{1.0404} + \frac{\$200\text{m}}{1.0612} + \frac{\$150\text{m}}{1.0824} \\ &= \$1,068.749\text{m} \end{aligned}$$

As noted above, the prospective payment of an Additional Ngāi Tahu Redress Amount by the Crown, deemed to be made on 31 December 1998, is designated \$X. Following *clause 18.4*, its Real Value as at 31 December 1994 must be calculated. Following paragraph (d) of the definition of Real Value in *clause 18.1.1*, this is

$$\begin{aligned} RV \left( \begin{array}{l} \text{Additional Ngai Tahu} \\ \text{Redress Amounts} \\ \text{up to and including} \\ \text{CFY 99} \end{array} \right) &= \frac{\$X}{CPI_{1999} / CPI_{1995}} \\ &= \frac{\$X}{1.0824} \end{aligned}$$

Following *clause 18.4*, this \$X must then be such that the \$180m (the illustrative Real Value of the Ngāi Tahu Redress Amount) plus the real value above of the \$X equals 18.2% (the illustrative Agreed Relativity Percentage) of the \$1,068.749m above. So

## EXAMPLE OF OPERATION OF SECTION 18

$$\$180\text{m} + \frac{\$X}{1.0824} = 0.182 \times \$1,068.749\text{m}$$

Thus  $\$X = 15.708\text{m}$ . This payment, deemed to have been made on 31 December 1998, would then be increased to reflect inflation over the period from 31 December 1998 to the end of the quarter immediately before the payment was made. So, if the payment was made on 15 October 1999, the  $\$X$  would be increased to reflect inflation from 31 December 1998 to 30 September 1999.

**(e) Calculations Performed Around 30 September 2004**

Following *clause 18.5*, the next possible claim is 5 years later, i.e. around 30 September 2004 ( $T=2004$ ). We return then to *clause 18.3*. Since the condition there for a claim was satisfied earlier with  $T=1999$ , then it will also be satisfied for  $T=2004$ . Thus we can proceed directly to *clause 18.4* and calculate the Additional Ngāi Tahu Redress Amount, deemed to be paid on 31 December 2003, and designated  $\$Y$ . Firstly, we calculate the Real Value as at 31 December 1994 of the Total Redress Amount up to and including CFY 2004. Referring to paragraph (c) of the definition of Real Value in *clause 18.1.1* this is

$$\begin{aligned} \text{RV} \left( \begin{array}{l} \text{Total Redress Amount} \\ \text{up to and including} \\ \text{CFY 2004} \end{array} \right) &= \$1,068.749\text{m (as above)} + \frac{\$250\text{m}}{1.1040} + \frac{\$200\text{m}}{1.1261} \\ &\quad + \frac{\$150\text{m}}{1.1486} + \frac{\$100\text{m}}{1.1716} + \frac{\$50\text{m}}{1.1950} \\ &= \$1,730.547\text{m} \end{aligned}$$

Next we determine the Real Value as at 31 December 1994 of any Additional Ngāi Tahu Redress Amounts up to and including CFY 2004, being the  $\$15.708\text{m}$  deemed paid earlier and the  $\$Y$  deemed to be paid on 31 December 2003. Following paragraph (d) of the definition of Real Value in *clause 18.1.1*, this is

$$\text{RV} \left( \begin{array}{l} \text{Additional Ngai Tahu} \\ \text{Redress Amounts} \\ \text{up to and including} \\ \text{CFY 2004} \end{array} \right) = \frac{\$15.708\text{m}}{1.0824} + \frac{\$Y}{1.1950}$$

Following *clause 18.4*, this  $\$Y$  must then be such that the  $\$180\text{m}$  referred to previously, plus the real value amount in the last equation above, equals 18.2% of the  $\$1,730.547\text{m}$  above, i.e.:

## EXAMPLE OF OPERATION OF SECTION 18

$$\$180\text{m} + \frac{\$15.708\text{m}}{1.0824} + \frac{\$Y}{1.1950} = 0.182 \times \$1,730.547\text{m} \quad [\text{equation (5)}]$$

So,  $\$Y = \$143.945\text{m}$ . This payment, deemed to have been made on 31 December 2003, would then be increased to reflect inflation over the period from 31 December 2003 to the end of the quarter immediately preceding the actual payment date.

Further claims would then arise every 5 years up to 2044, with a claim in 2044 even if it was less than 5 years since its predecessor.

It should finally be noted that, in equation (5), the  $\$15.708\text{m}$  used is the  $\$X$  calculated earlier rather than the actual amount paid (the latter being  $\$X$  raised to reflect inflation from the deemed payment date to the end of the quarter preceding the actual payment date). This is because the discounting performed in equation (5) on the  $\$15.708\text{m}$  presumes payment on 31 December 1998 and this presumption then requires use of the  $\$15.708\text{m}$ .

## EXAMPLE OF OPERATION OF SECTION 18

TABLE A

<b>CFY(n)</b>	<b>TAR<sub>n</sub> \$m</b>	<b>PV(TAR<sub>n</sub>) \$m</b>	<b>Present Value as at 31.12.94 of Total Redress Amount \$m</b>
1996	100	94.551	449.869
1997	300	268.199	718.069
1998	200	169.057	887.126
1999	150	119.884	1,007.011
1900	250	187.586	1,194.598
2001	200	140.890	1,335.489
2002	150	99.204	1,434.694
2003	100	62.091	1,496.785
2004	50	28.899	1,525.685
2005	100	53.804	1,579.489
2006	50	25.042	1,604.532

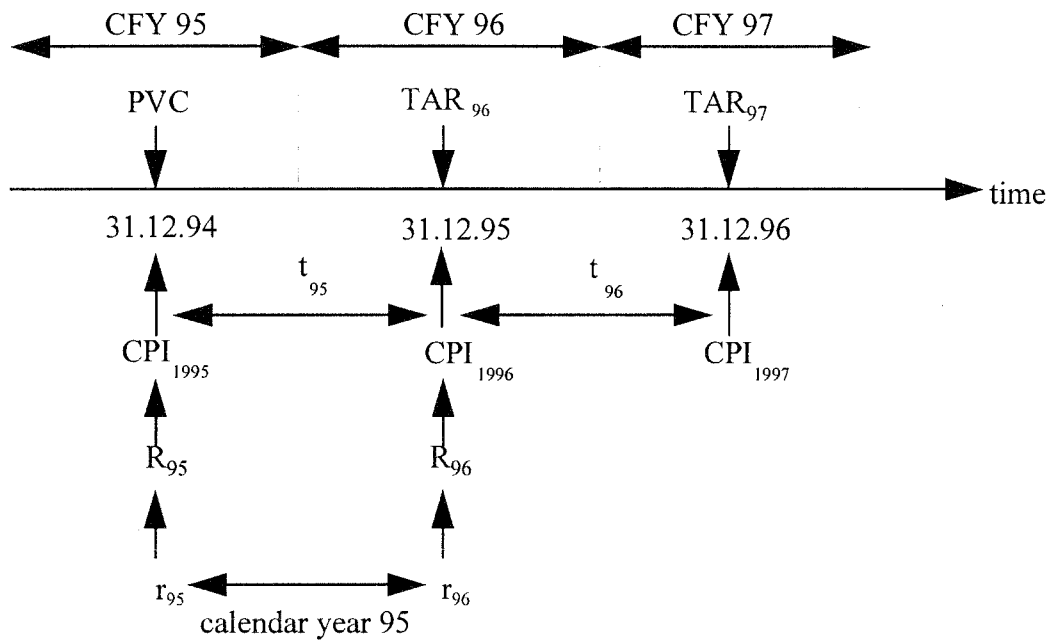
## EXAMPLE OF OPERATION OF SECTION 18

TABLE B

Calendar Year (k)	$R_k$	$t_k$	CPI (beginning of calendar year k)	$r_k (1 - t_k \times 0.75)$
1995	.07	.33	1000	.0368872
1996	.07	.33	1020	.0368872
1997	.07	.33	1040.4	.0368872
1998	.07	.33	1061.208	.0368872
1999	.08	.33	1082.4322	.0442647
2000	.08	.33	1104.0808	.0442647
2001	.08	.33	1126.1624	.0442647
2002	.08	.33	1148.6857	.0442647
2003	.09	.30	1171.6594	.0531862
2004	.09	.30	1195.0926	.0531862
2005	.09	.30	1218.9944	.0531862
2006			1243.3743	

FIGURE 1

TIME SPAN OR POINT IN TIME FOR VARIOUS RELATIVITY MECHANISM ELEMENTS



*mark pm*