

# Carbon Neutral Public Service Programme Emission Inventory Report for Inland Revenue 2006/07 Year

20 December 2007

# Emission Inventory Report

Emissions Inventory Report

Inland Revenue

Prepared by

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In accordance with Part 7.3.1 of ISO 14064 (7.3.1 p)

Date

30 September 2007.

For the period

1 July 2006 to 30 June 2007 (7.3.1 c)

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## Emissions Inventory Summary (7.3.1 e)

Type of emission	Tonnes CO <sub>2</sub> -e
<b>Direct (Scope 1) emissions</b>	
Petrol use	464.77
Diesel use	0.04
LPG use	4.54
Natural gas in owned buildings and leased buildings where the agency is the sole tenant	323.90
<b>Total Direct (Scope 1) Emissions</b>	<b>793.25</b>
<b>Indirect (Scope 2) Emissions</b>	
All purchased electricity in owned buildings and leased buildings where the agency is the sole tenant	1499.76
Purchased electricity for lighting and utility/appliance power in leased space where the agency is not the sole tenant	3176.68
<b>Total Indirect (Scope 2) Emissions</b>	<b>4676.44</b>
<b>Indirect (Scope 3) Emissions</b>	
Transmission and distribution line losses for all purchased electricity	502.60
Air travel	2451.86
Business travel in Rental cars / taxis	171.05
Waste to landfill	151.55
Energy Consumed by Outsource Providers (Printers/IT/Datamail)	658.30
<b>Total Indirect (Scope 3) Emissions</b>	<b>3935.37</b>
<b>Total Emissions</b>	<b>9405.06</b>

(7.3.1 e)

Area	CO <sub>2</sub>	CH <sub>4</sub>	N <sub>2</sub> O	HFCs	PFC's	SF <sub>6</sub>	CO <sub>2</sub> e
<b>Direct (Scope 1) emissions</b>							
Petrol use	459.67	2.72	3.10				464.77
Diesel use	0.04	0.00	0.00				0.04
LPG use	4.49	0.04	0.01				4.54
Natural gas in owned buildings and leased buildings where the agency is the sole tenant	319.80	0.14	3.94				323.90
<b>Total Direct (Scope 1) Emissions</b>	<b>784.00</b>	<b>2.91</b>	<b>7.06</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>793.25</b>
<b>Indirect (Scope 2) Emissions</b>							
All purchased electricity in owned buildings and leased buildings where the agency is the sole tenant	1499.76						1499.76
Purchased electricity for lighting and utility/appliance power in leased space where the agency is not the sole tenant	3176.68						3176.68
<b>Total Indirect (Scope 2) Emissions</b>	<b>4676.44</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>4676.44</b>

Area	CO <sub>2</sub>	CH <sub>4</sub>	N <sub>2</sub> O	HFCs	PFC's	SF <sub>6</sub>	CO <sub>2</sub> e
<b>Indirect (Scope 3) Emissions</b>							
Transmission and distribution line losses for all purchased electricity	502.60						502.60
Air travel	2458.79						2451.86
Business travel in Rental cars / taxis	171.05						171.05
Waste to landfill	151.55						151.55
Energy Consumed by Outsource Providers (Printers/IT/Datamail)	658.30						658.30
<b>Total Indirect (Scope 3) Emissions</b>	<b>3942.30</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>3935.37</b>
<b>Total</b>	<b>9402.74</b>	<b>2.91</b>	<b>7.06</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>9405.06</b>

## Summary

Below is a summary table on any emissions which have been excluded and a summary of issues around the difficulties of collecting certain data for this first year.

Emission Source excluded	Emission Level Scope
Staff commuting to work in personal cars	Indirect (Scope 3)
Outsourced Emissions (payment receipt)	Indirect (Scope 3)
Outsourced Contractors working offsite (IT consultants)	Indirect (Scope 3)

## Data Collection

Data collection for the first years programme has posed some difficulties for Inland Revenue in a number of key areas. These areas included measuring:

- the amount of significant emissions from outsourced suppliers (both IT and printing related - Datamail printing and mailing service and Offset printers),
- energy consumed as part of the base building services (due to the number of landlords involved) and
- international air travel (due to a manual recording process).

All of these areas have been mentioned in more detail in the *Uncertainties* section of the report.

## 1. Introduction (7.3.1 p)

This emissions inventory report has been prepared and written in accordance with Part 7.3.1 of ISO 14064-1 and is designed to be used in the process of becoming carbon neutral by 2012.

## 2. Statement of intent

Inland Revenue is one of the six public service agencies that will lead the way in achieving carbon neutrality by the year 2012. This programme will be broken down into three key stages which are set out below;

- Measure emissions
- Reduce emissions
- Offset unavoidable emissions

This carbon neutral process will include the offsetting of the reduced carbon emissions through a centralised process which will be administered by the Ministry for the Environment.

## 3. Organisation description (7.3.1 a)

Inland Revenue is a large organisation that deals with a high volume of transactions, often involving very complex matters. Our main roles are:

- advising government, alongside The Treasury, on tax policy and certain social policy measures,
- collecting tax payments, child support and student loans,
- distributing payments such as tax refunds and rebates, Working for Families Tax Credits, child support and paid parental leave,
- administering KiwiSaver (from 1 July 2007),
- and administering a range of Acts of Parliament including the Tax Administration Act, Income Tax Act, Student Loans Act, Child Support Act and Goods and Services Tax Act.

### Our customer base<sup>1</sup>

We have:

- 6,287,000 taxpayers (individuals, businesses, partnerships, trusts and other entities)
- 499,000 student loan borrowers
- 140,000 child support custodians with a current year entitlement
- 138,000 child support paying parents
- 190,000 customers receiving regular Working for Families Tax Credits payments
- 25,000 paid parental leave recipients.

### Resources

We have:

- 5,552<sup>2</sup> full-time equivalent people based in 40 sites across, 17 cities and towns
- appropriation for 2007–08 of \$597.2 million.

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<sup>1</sup> The number of taxpayers is at 31 December 2006. All other customer base figures are at 30 June 2007.

<sup>2</sup> As at 30 June 2007.

## Workload

In the 2006–07 year we:

- assessed \$48.5 billion in tax revenue
- processed 8.1 million returns and 7.8 million payments
- and, actioned 12.9 million customer contacts<sup>3</sup>, including child support and KiwiSaver.

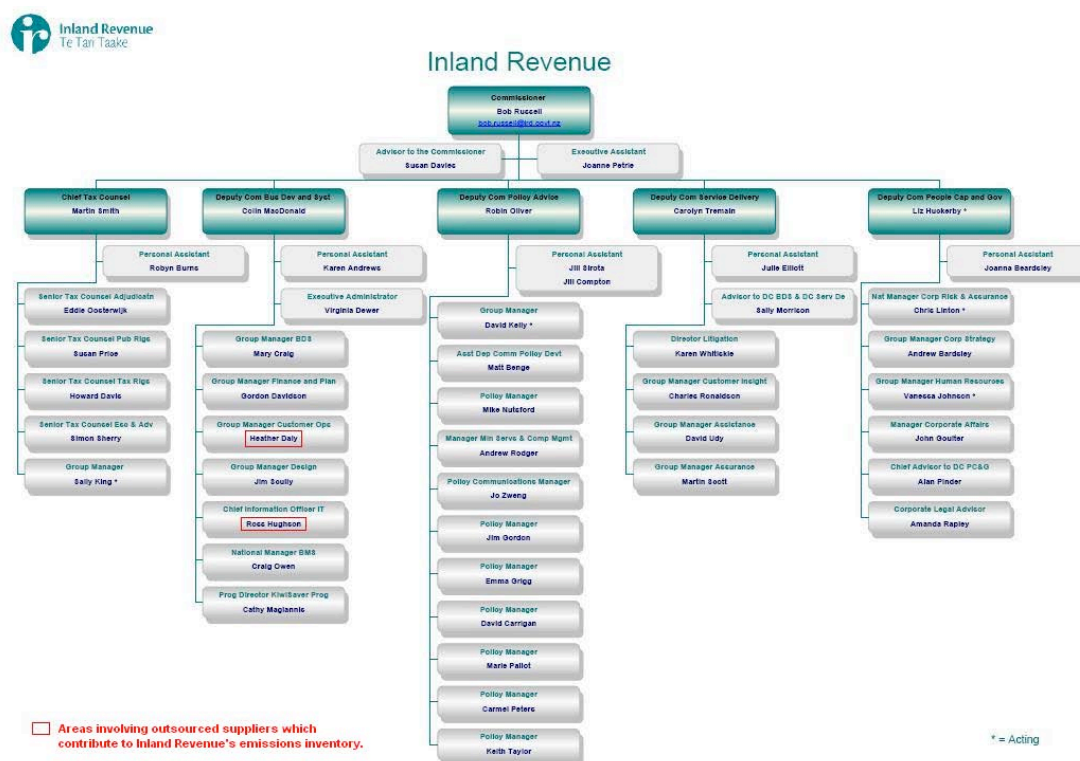
## 4. Persons responsible (7.3.1 b)

- The Commissioner of Inland Revenue has overall responsibility for the emissions inventory.
- These documents have been approved for the carbon neutral programme by Colin MacDonald, Deputy Commissioner, Business Development and Systems.
- The documents were prepared by Peter Noble, Sustainability Manager, Inland Revenue Sustainability Team. The data has been reviewed by Aseel Hameed, Finance and Planning.

## 5. Organisational boundaries included for this report period (7.3.1 d)

The Agency uses the financial control based approach to define organisational boundaries. Due to the legally prescribed nature of the core public service, the application of both the control or equity approach is likely to have the same effect, as government agencies do not have subsidiaries or associate companies in the same manner that private sector companies have group structures, or complex lease arrangements.

The organisational boundaries of an agency are defined by statute and for the purposes of the GHG inventory include core agency activities only.



<sup>3</sup> Includes customer contacts received by telephone, counter, correspondence and self-help options (eg INFOexpress and other e-services).

## 6. Emissions sources inclusions (7.3.1 e)

Emission sources were identified with reference to the methodology described in the GHG Protocol and the ISO 14064-1 (2006) standard. Identification of emissions sources was achieved using the specific guidance on Scope 3 factors included in the Cabinet Paper POL (07) 131: Towards a Sustainable New Zealand: Carbon Neutral Public Service. Further guidance was obtained from the Ministry for the Environment.

These emissions have then been classified into three categories. The definition of each has been adapted from the GHG Protocol. The three types of emissions are;

- Direct emissions (Scope 1): emissions from sources that are owned or controlled by the agency.
- Indirect emissions (Scope 2): emissions from the generation of purchased electricity consumed by the agency.
- Indirect emissions (Scope 3): emissions that occur as a consequence of the activities of the agency, but occur from sources not owned or controlled by the agency. Inclusions of these are determined on case by case basis, and relate to the agency's aims of the programme.

### Actual emissions

Emission source	Scope of Emission
Petrol for vehicles	Scope 1
Diesel for vehicles	Scope 1
LPG for vehicles	Scope 1
Natural gas in owned buildings and leased buildings where the agency is the sole tenant	Scope 1
All purchased electricity in owned buildings and leased buildings where the agency is the sole tenant	Scope 2
Purchased electricity for lighting and utility/appliance power in leased space where the agency is not the sole tenant	Scope 2
Transmission and distribution line losses for all purchased electricity	Scope 3
Domestic air travel	Scope 3
International air travel	Scope 3
Taxi travel	Scope 3
Business travel in rental cars	Scope 3
Waste to landfill	Scope 3
Purchased electricity for base building power in leased buildings where the agency is not the sole tenant	Scope 3
Energy Consumed by Outsource Providers (IT/Datamail)	Scope 3

No biomass is used in Inland Revenue operations and therefore no emissions from the combustion of biomass are included. (7.3.1 f)

No imported electricity, heat or steam is used in Inland Revenue operations and therefore no emissions from the generation of imported electricity, heat or steam are included. (7.3.1 i)

## 7. Emission sources exclusions (7.3.1 h)

There needs to be a statement of any sources of GHG emissions or sinks which have not been included.

Emission Source	Emission Level Scope
Staff commuting to work in personal cars	Indirect (Scope 3)
Outsourced Emissions (payment receipt)	Indirect (Scope 3)
Outsourced Contractors working offsite (IT consultants)	Indirect (Scope 3)

### Justification for exclusion

**Staff commuting to work in personal cars;** this is considered to fall under the personal carbon foot print of the employee as the agency has little control over where people choose to live; therefore this is outside the Scope. Work will be undertaken to produce travel plans to help reduce this effect under a further scheme.

**Outsourced Emissions (payment receipt);** this is considered to fall under Inland Revenue Core services, but due the size of the emission footprint it has not been included. Our outsource payment receipt deals with only 5% of all Inland Revenue payments, and payment receipt is less than 10% of the total Inland Revenue business

**Outsourced Contractors working offsite (IT consultants);** this is considered to fall under Inland Core services, but due the size of the emission footprint it has not been included. Our outsourced contractors working not on Inland Revenue's premises represent about 10 staff out of Inland Revenue's FTE's of 5,500 and therefore their contribution is not considered significant.

## 8. Base year selected (7.3.1 j)

This is Inland Revenue's first report. The chosen base year calculated for this report is the year from 1 July 2006 to 30 June 2007.

## 9. Data collection quantification of methodologies (7.3.1 l and n)

The table below details the sources of the relevant data and the emission factors which have been used. All the factors have been approved by the Ministry for the Environment. The amount of CO<sub>2</sub>e has been calculated by multiplying the activity data sourced by the agency by the relevant emission factor. As this is the first year that the agency has produced these figures there have not been any changes in methodology to report. (7.3.1 k)

Emission or Removal Source	Data Collection Unit	Emission or Removal Factor	Factor Source
<b>Scope 1 emissions</b>			
Petrol Regular	Litre	0.0023154	1
Petrol Premium	Litre	0.0023666	1
Diesel	Litre	0.0026512	1
Natural gas	kWh	0.0001897	1
LPG- Mobile use	Litre	0.0016051	1
<b>Scope 2 emissions</b>			
Purchased electricity	kWh	0.002091	1
<b>Scope 3 emissions</b>			
Transmission and	kWh	0.0000197	1

Emission or Removal Source	Data Collection Unit	Emission or Removal Factor	Factor Source
distribution line losses for all purchased electricity			
Domestic air travel	Km	0.00018	3
International air travel	Km	0.00011	3
Taxi travel	Km	0.0002373	4
Rental cars	Km	0.0002373	4
Waste to landfill	Tonne	0.9	5

### References for emission factors

The following references should be used in the emissions inventory report to identify where the factors were sourced.

1. New Zealand Energy Greenhouse Gas Emissions 1990-2006 (Ministry of Economic Development, 2007).

2. CO<sub>2</sub> emission factor sourced from: New Zealand Energy Greenhouse Gas Emissions 1990-2006 (Ministry of Economic Development, 2007).

CH<sub>4</sub> and N<sub>2</sub>O emission factors sourced from: Calculation Tool for Direct Emissions from Stationary Combustions Calculation worksheets, Non-CO<sub>2</sub> Emission Factors Worksheet (WBCSD/WRI GHG Protocol Initiative - available from the GHG Protocol website).

3. Mobile Combustion CO<sub>2</sub> Emissions Calculation Tool, Emissions based on distance Worksheet (WBCSD/WRI GHG Protocol Initiative - available from the GHG Protocol website).

4. New Zealand Energy Greenhouse Gas Emissions 1990-2006 (Ministry of Economic Development, 2007). Fuel economy rate sourced from Ministry of Transport (2007).

5. Emission factor methodology from Ministry for the Environment. Based on data from: New Zealand's Greenhouse Gas Inventory 1990-2005 (Ministry for the Environment, 2007).

## 10. Emission reductions and removals (7.3.1 g)

Inland Revenue has achieved no significant emissions reductions for this reporting period as this is the first reporting period. It has established Inland Revenue baseline year emissions.

Inland Revenue will have a management plan in place for managing and reducing emissions by early 2008 with the aim to be carbon neutral by 2012.

## 11. Uncertainties (7.3.1 o)

There needs to be a description of the impact of uncertainties on the accuracy of the GHG emissions and removals data.

Emission Scope	Emission Source	Uncertainties
Scope 3	Domestic flights	It is assumed that records supplied by BusinessDirect/ QANTAS are complete and accurate. This is a direct electronic feed.
Scope 3	International flights	It is assumed that records supplied by BusinessDirect are complete and accurate. This information is collated from manual invoices.  We have not separated the domestic part of international trips
Scope 3	Purchased electricity for base building power in leased buildings where the agency is not the sole tenant	We have estimated the energy consumption at 100 kWh per square metre.
Scope 3	Taxi travel	Taxis travel is based on an estimate of KMs from a ratio of dollars spent to KMs at \$2.30 per KM.
Scope 3	Waste to landfill	Waste information has been taken for three sites and then extrapolated over all Inland Revenues sites
Scope 3	Waste to landfill	Waste information has been taken pre/post implementation of recycling programme – some audits not part of 06/07 tear
Scope 3	Energy Emissions	Outsourced provision is based on suppliers providing estimates of power consumption for Business related to Inland Revenue.

## 12. Verification of the GHG Inventory (7.3.1 q)

This GHG emissions inventory report has been verified by DNV, a third party independent auditor. A positive assurance report has been given over the assertions and quantifications included in this report.

## Approval

This emissions inventory report has been approved by:

**Commissioner of Inland Revenue**

14 December 2007