

# Emissions Inventory Report

Emissions Inventory Report

Department of Labour

Prepared by

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In accordance with Part 7.3.1 of ISO 14064, and a  
template from the Ministry for the Environment

Date

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For the period

1 July 2006 to 30 June 2007

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## Emissions Inventory Summary

Type of emission	Tonnes CO <sub>2</sub> -e*
<b>Direct (Scope 1) emissions</b>	
Petrol use	469.7578531
Diesel use	145.0984490
LPG use	0
Natural gas in owned buildings and leased buildings where the agency is the sole tenant	24.4056803
Coal use	0
<b>Total Direct (Scope 1) Emissions</b>	<b>639.26</b>
<b>Indirect (Scope 2) Emissions</b>	
All purchased electricity in owned buildings and leased buildings where the agency is the sole tenant	1359.7208507
Purchased electricity for lighting and utility/appliance power in leased space where the agency is not the sole tenant	637.0545910
<b>Total Indirect (Scope 2) Emissions</b>	<b>1996.78</b>
<b>Indirect (Scope 3) Emissions</b>	
Transmission and distribution line losses for all purchased electricity	188.1166060
Air travel	3368.4222960
Business travel in taxis	45.6434821
Business travel in rental cars	39.8865670
Waste to landfill	51.05
<b>Total Indirect (Scope 3) Emissions</b>	<b>3693.12</b>
<b>Total Emissions</b>	<b>6329.16</b>

Area	*CO <sub>2</sub>	*CH <sub>4</sub>	*N <sub>2</sub> O	*HFCs	*PFC's	*SF <sub>6</sub>	Total CO <sub>2</sub> e
Scope 1							
Petrol -regular	448.409523	2.66261536	3.03318554	0	0	0	454.105324
Petrol -premium	15.7426344	0.0914153	0.10415076	0	0	0	15.9382005
Diesel	142.569953	0.16533736	2.38291584	0	0	0	145.118206
<b>Total</b>	<b>606.72211</b>	<b>2.91936802</b>	<b>5.52025214</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>615.162</b>

## 1. Introduction

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 being on the path to carbon neutrality by 2012.

## 2. Statement of intent

The Department of Labour is one of the 28 stage two core public service agencies that will be on the path to 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<sup>1</sup>

## 3. Organisation description

As of 30 June 2007, the Department of Labour had 1,926 staff employed in New Zealand with a further 224 employed as locally engaged staff off shore. The Department has 48 offices at 17 New Zealand locations, including the national office in Wellington. We also have 15 immigration offices overseas (one in Australia, eight in Asia, three in Europe and, three in the Pacific).

### Structure

The Secretary of Labour chairs the Strategic Leadership Team, which is the governance committee for the Department. This team comprises the Secretary and five Deputy Secretaries. It leads the Department's strategic direction, organisational development and capability, and organisation performance and monitoring.

### Ministers and Votes

The Minister of Labour is the Responsible Minister for the Department. The Department administers four Votes and reports to the Ministerial portfolios listed below.

Minister	Vote
Minister of Labour	Labour
Minister of Immigration	Immigration
Minister for Social Development and Employment	Employment
Minister for ACC	ACC

### Strategic framework

The Department has adopted the following strategic framework:

#### Outcome

Productive Work and High-Quality Working Lives

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<sup>1</sup> The term "unavoidable emissions" should be understood to include a cost-benefit analysis of the reduction measures.

## Purpose

To make New Zealand a world leader in workforce and workplace performance

### Goals

**Our place in the world:**

**New Zealand will prosper through its connections with the rest of the world.**

**Our workplaces:**

**New Zealand workplaces will lead the world in maximising the value of work while providing a high-quality working life.**

**Our workforce:**

**The skills of our workers will ensure New Zealand enterprises are leaders internationally.**

**Our people:**

**All New Zealanders will be able to grow and develop through access to well-paid and meaningful employment.**

### Medium-term Priorities

Supporting New Zealand's prosperity through:

- an immigration programme that adds to the richness of our society
- border security arrangements that manage risk
- making migrants feel welcome
- building relationships and partnering with other nations
- support for Pacific nations.

Supporting and promoting the transformation of New Zealand workplaces to become high-performing and to achieve high-quality working lives by focusing on:

- the drivers of workplace productivity
- skills
- safe and healthy workplace cultures
- decent work
- excellent employment relationships.

Influencing the supply of skilled labour by:

- better targeting the immigration programme
- working with industry and education sectors to match educational services to the needs of our workers, employers and the economy.

Supporting increased labour market participation by leading the Government's work programme on:

- enhancing parents' and other carers' choices about work and family arrangements
- assisting transitions for youth into employment
- enhancing employment for groups under-represented in the labour force.

### Core activities

Core activities to achieve the Department's priorities and goals include:

- An immigration programme that adds to the richness of our society
- Border security arrangements that manage risk
- Making migrants feel welcome
- Building relationships and partnering with other nations
- Support for Pacific nations
- The drivers of workplace productivity
- Skills

- Decent work
- Excellent employment relationships
- Better targeting the immigration programme
- Working with industry and education sectors to match educational services to the needs of our workers, employers and the economy
- Enhancing parents' and other carers' choices about work and family arrangements
- Assisting transitions for youth into employment
- Enhancing employment for groups under-represented in the labour force

## 4. Persons responsible

The overall responsibility for the emissions inventory lies with the Chief Executive.

These documents for the carbon neutral programme have been approved by the Deputy Secretary Corporate, Brian Sage, and the Director of Planning and Performance, Helen Omundsen.

The documents have been coordinated by Ross Wells, Principal Advisor, Planning and Performance, with major contributions from Hamish McCaw, Manager of Property and Procurement, and Lynn Bull, Procurement Manager.

## 5. Organisational boundaries included for this report period

The Agency uses the financial control based approach to defining organisational boundaries. Due to the legally prescribed nature of the core public service, the application of either the control or equity approach is likely to have the same effect, as government agencies do not have subsidiaries, 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.

## 6. Emissions sources inclusions

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
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
Business travel in employee owned cars	Scope 3
Waste to landfill	Scope 3
Natural gas for base building heating in leased buildings which are multi-tenanted	Scope 3
Purchased electricity for base building power in leased buildings where the agency is not the sole tenant	Scope 3

No biomass is used in Department of Labour operations and therefore no emissions from the combustion of biomass are included.

## 7. Emission sources exclusions

	Emission Source	Emission Level Scope
1	Staff commuting to work in personal cars	Indirect (Scope 3)

### Justification:

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, so this is outside the Scope. Work will be undertaken to produce travel plans to help reduce this effect under a future scheme.

## 8. Base year selected

This is the Department of Labour's first report. The chosen base year for this report is from 1 July 2006 to 30 June 2007.

## 9. Data collection quantification of methodologies

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.

Emission or Removal Source	Data Collection Unit	Emission or Removal Factor	Factor Source
Petrol Regular	Litre	0.0023154	NZ Energy Greenhouse Gas Emissions 1990-2006 (MED 2007)
Petrol Premium	Litre	0.0023666	As above
Petrol average	Litre	0.0023263	As above
Diesel	Litre	0.0026512	As above
Natural gas	kWh	0.0001897	As above
LPG- Mobile use	Litre	0.0016051	As above
LPG- Equipment	Kg	0.0029997	As above
Coal	Kg	0.0020157	As above
Wood	Kg	0.002042	As above
<b>Scope 2 emissions</b>			
Purchased electricity	kWh	0.0002091	As above
<b>Scope 3 emissions</b>			
Transmission and distribution line losses for all purchased electricity	kWh	0.0000197	As above
Domestic air travel	Km	0.00018	Mobile Combustion CO2 Emissions Calculation Tool, Emissions based on distance Worksheet (WBCSD/WRI GHG Protocol Initiative - available from the GHG Protocol website)
International air travel	Km	0.00011	As above
Taxi travel	Km	0.0002373	NZ Energy Greenhouse Gas Emissions 1990-2006 (MED 2007). Fuel economy rate sourced from Ministry of Transport (2007)
Rental cars	Km	0.0002373	As above
Business travel in employee owned cars	Km	0.0002373	As above
Waste to landfill	Tonne	See below	Emission factor methodology from MfE. Based on data from: NZ's Greenhouse Gas Inventory 1990-2005 (MfE, 2007)

## 10. Emission reductions and removals

The Department of Labour has achieved no significant emissions reductions for this reporting period as this is the first reporting period which is establishing the Department's baseline year emissions.

The Department of Labour will work to have a management plan in place for managing and reducing emissions developed during 2008 with the aim to be on the path to carbon neutrality by the year 2012.

## 11. Uncertainties

The impact of uncertainties on the accuracy of the GHG emissions and removals data is set out below

Emission Scope	Emission Source	Uncertainties
All scopes	All sources	Assessing the emissions of off-shore branches

		<p>presents particular complications:</p> <ul style="list-style-type: none"> <li>• The information is not held centrally</li> <li>• The information may not be in an electronic format or indicate units used</li> <li>• It may not be readily collated – for example, where the branch is co-located with another agency, or located within the building of another agency. The London New Delhi and Moscow branches are located within Chanceries, owned by the Ministry of Foreign Affairs and Trade</li> </ul> <p>The issue was discussed with consultants, and an assessment of off-shore branches found that getting this information would involve a significant compliance cost and could not be completed within the time frames. In addition, even where source information may be available, the formulae for converting energy use to carbon emissions needs to be calculated on a country by country basis (for example, it depends on the sustainability of the electricity source). The Department does not have the expertise to undertake this exercise and would depend on support from the Ministry for the Environment.</p> <p>In response to the request from the Ministry for the Environment, the data produced for on-shore activities has been multiplied out to reflect the activities of the whole Department. The NZ data reflects the activities of 1672.995 full-time equivalent staff. In addition, the Department has 237.275 FTE staff off shore. The NZ figures have therefore been multiplied by 1.1419 to give a total departmental figure. This figure is an estimate and will be subject to change as true figures become available.</p>
Scope 2	Purchased electricity for lighting and utility/appliance power in leased space where the agency is not the sole tenant	This information is not readily available. An estimate has been calculated based on an assessment of the electricity use per square metre in the National Office at Unisys House and extrapolating that across all leased space in New Zealand.
Scope 3	Waste to landfill	Data from the waste audits that have been undertaken provided an average figure of waste produced per full-time employee in New Zealand, and this was extrapolated across the whole of the Department's work force, internationally as well as within New Zealand

## 12. Verification of the GHG Inventory

This inventory has not been verified, and verification of this baseline report is not required.