Working Paper 2020/04

# Analysis of Climate Reporting in the Public and Private Sectors

MCGUINNESS INSTITUTE
TE HONONGA WAKA

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# 1.0 Introduction

## 1.1 Purpose

This working paper aims to contribute to a dialogue on how New Zealand might manage risks and maximise opportunities in the transition to a low-carbon economy. It is hoped that this work will be particularly useful given the current New Zealand government proposal to embed climate-related reporting into the New Zealand reporting framework. We hope this quantitative research provides useful data and insights on the urgency of the need to establish a mandatory (comply-or-explain) climate-related reporting regime in New Zealand.

The purpose of this working paper is to explore the extent of climate-related reporting in the annual reports of both public and private sector entities. The term 'climate-related reporting' refers to discussion of the behaviour of an entities in terms of climate change risks and initiatives and carbon emission metrics, costs, controls and targets in an annual report.

## 1.2 Purpose of Project ReportingNZ

This working paper forms part of *Project ReportingNZ,* which aims to contribute to a discussion on how to build an informed society, with particular regard to the important role that entities play within society. When entities operate efficiently and with similar values to the communities in which they operate, they add value through employment, taxation revenue and the support of community initiatives. However, entities can also present challenges if they do not reflect societal values or do not operate in a transparent manner. *Project ReportingNZ* looks specifically at the role of annual reports as a tool for improving the relationship between entities and the communities in which they operate. It also examines annual reports as one of the few mechanisms to collect readily available data on entities for use as an evidence base in policy development.

An underlying assumption of *Project ReportingNZ* is that New Zealand's reporting framework is no longer fit for purpose. Questions of what users of reports need to know, in what format and in what time frame, need to be explored and assessed regularly to ensure reports are timely, relevant, cost-effective and useful.

The specific assumption underlying this working paper is that reporting on climate change is new, challenging and complex. As a result, all parties are required to work together to ensure that regulation, standards and guidelines work together to produce cost-effective, accessible, timely and comparable reports. The adage 'we manage what we measure' highlights that what is not measured is not managed. This working paper has been developed under the assumption that having a source of accessible, comparable and meaningful information gathered over an extended period of time creates a fundamental basis for informing public policy decisions.

This working paper follows on from previous *Project ReportingNZ* publications:

- *Working Paper 2018/01 – NZSX-listed Company Tables* (March 2018)
- *Working Paper 2018/03 – Analysis of Climate Change Reporting in the Public and Private Sectors* (July 2018)
- *Think Piece 30 – Package of Climate Change Reporting Recommendations* (October 2018)
- *Working Paper 2019/05 – Reviewing Voluntary Reporting Frameworks Mentioned in 2017 and 2018 Annual Reports* (September 2019)
- *Think Piece 32 – Exploring Ways to Embed Climate Reporting in the Existing Framework* (September 2019)
- *Discussion Paper 2019/01 – The Climate Reporting Emergency: A New Zealand case study* (October 2019)
- *Submission on the NZ Government's consultation document Climate-related financial disclosures Understanding your business risks and opportunities related to climate change* (December 2019).

It also contributes to the upcoming *Report 17 – Building a Reporting Framework Fit For Purpose.*

# 2.0 Methodology

## 2.1 Data sets

The initial stage of this research was to define the seven data sets we would be analysing and comparing, represented in Table 1 below.

Table 1: Data sets

| Data sets | 2019 | |
|---|---|---|
| | No. of entities | No. of available annual reports |
| Deloitte Top 200 companies | 200 | 174 |
| State-owned enterprises | 14 | 9 |
| Crown agents and Crown entities | 63 | 57 |
| District health boards* | 20 | 20 |
| Crown Research Institutes* | 7 | 7 |
| Government departments | 32 | 32 |
| Local authorities | 78 | 78 |
| **Total**** | **414** | **377** |

Notes:

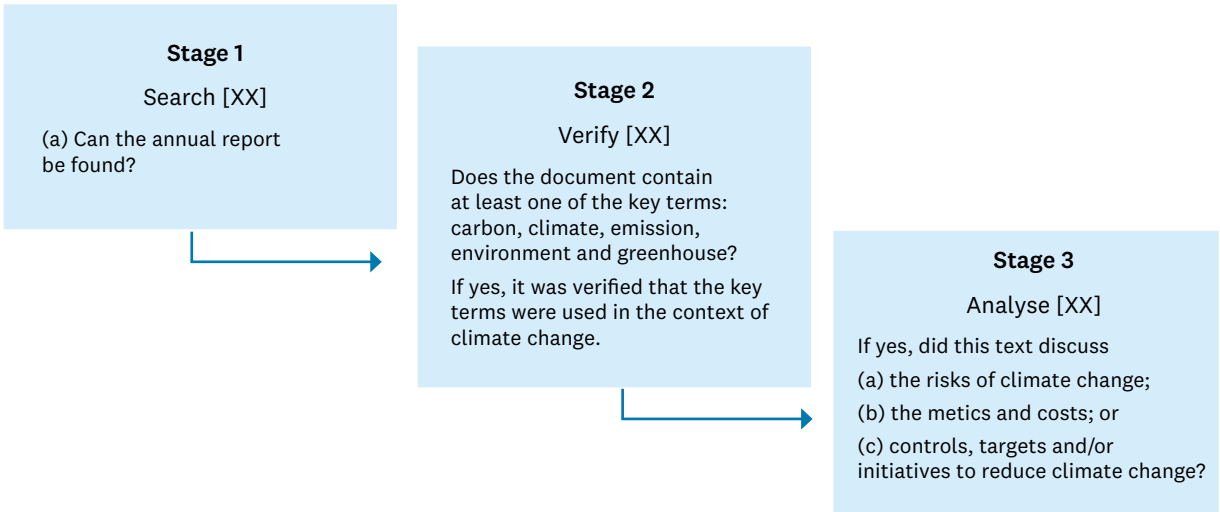
* DHBs and CRIs were treated as separate data sets rather than being included in the Crown agents and Crown entities data set.

** The total figure does not represent individual entities because some entities are both state-owned enterprises and on the Deloitte Top 200.

## 2.2 The standard methodology

The standard methodology for all data sets is summarised by Figure 1 and explained further below.

Figure 1: Standard methodology for all data sets




### 2.2.1 Stage 1: Search

Goal: Find copies of all annual reports.

To find a soft copy of each entity's annual report, the Companies Register was searched first and then, if required, the entity's website. If only financial statements (not annual reports) were found, they were included in the data set but excluded from Stage 2 onwards. Annual reports used in the data set had a year end during the 2019 calendar year.

### 2.2.2 Stage 2: Verify

Goal: Establish whether the documents include the search terms and verify that the terms are used in the context of climate change.

Using the 'advanced search' function on Adobe Acrobat Pro, all documents from a single data set could be aggregated and searched collectively for the terms 'carbon', 'climate', 'emission', 'environment' and 'greenhouse'. For documents that were not searchable using the 'find' tool, text recognition software (Adobe Acrobat Pro) was used. Documents that did not contain any of the five search terms were set aside. Reports were checked to ensure that documents containing the search terms had used them in a context relevant to this research. For example, if a document only used the term 'climate' or 'environment' in reference to the 'economic climate/environment', and did not include any other relevant disclosures, the document did not proceed to the next stage of research.

### 2.2.3 Stage 3: Analyse

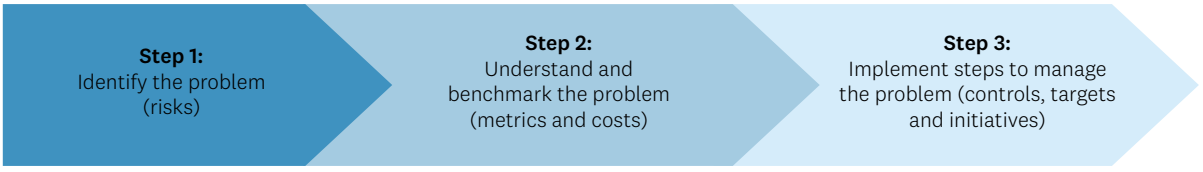
Goal: Analyse all the text containing the search terms.

In this stage, disclosures were grouped into one of the following climate information categories:

1. **Climate change risks:** Any possible impact that climate change may have on the future of the entity, country and/or world. The company may have a response to these impacts as part of its discussion of risk.
2. **Emission metrics:** Existing carbon emissions data stated in tonnes, percentages or $CO_2$ /$m^2$ produced and/or abated.
3. **Emission costs:** Existing carbon emission offsets stated in financial figures and/or the number of carbon units used (usually found in financial statements).
4. **Emission controls:** Reference to existing measures that were put in place to control or abate carbon emissions.
5. **Emission targets:** Specific goals to reduce future carbon emissions. Emission targets refer to a specific numerical value (in contrast to initiatives, which are broader and less specific).
6. **Climate change initiatives:** A statement, reference to an action, or similar that shows the entity is taking action or planning to take action to curb its emissions or reduce its vulnerability to climate change risks (or the vulnerability of a country or the world).

The categories were selected to represent the three steps of problem solving. Analysing disclosures of risk tells us firstly if the entity is identifying a problem. Analysing disclosures of metrics and costs tells us secondly what data the entity is collecting to understand and benchmark the problem. Analysing disclosures of controls, targets and initiatives tells us finally what the entity is doing to try and manage the problem. In the bar graphs, Step 1 is indicated with dark blue, Step 2 with medium blue and Step 3 with light blue, as in Figure 2 below.

Figure 2: Steps of problem solving




## 2.3 Collating the data

### 2.3.1 Stage 2 data

The results for each data set were recorded on separate sheets of an Excel workbook. Each sheet included a table of the 2019 annual reports published by each entity. Reviewers recorded whether or not an entity had mentioned one or more of the search terms in their 2019 reports along with the page number(s) where the information was found.

### 2.3.2 Stage 3 data

The results for each data set were recorded on separate sheets of an Excel workbook. Each sheet included a table of the 2019 annual reports published by each entity. Reviewers recorded whether or not the inclusion of the search terms were relevant in one or more of the climate information categories mentioned on the previous page. The relevant qualitative information was recorded along with the page number(s) where it was found.

## 2.4 Presenting the data

The final data is presented as a series of graphs in Section 3.0. Each graph represents the relevant data set containing information found within entities' respective 2019 annual reports. Disclosed climate information has been colour-coded to represent the category that it belongs to, as mentioned previously (see Figure 2 in Section 2.2.3). The lighter shades of these colours represent the annual reports that did not disclose climate change information. Unavailable annual reports and financial statements are indicated in white.

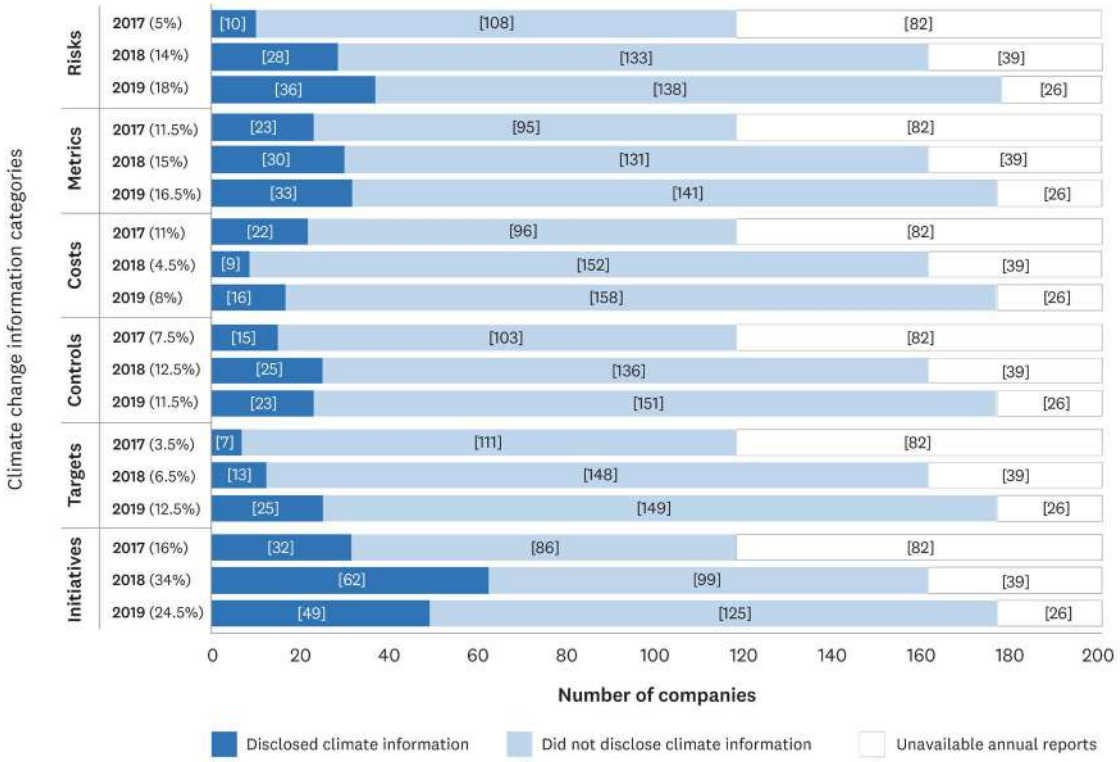
# 3.0 Results

## 3.1 Deloitte Top 200 [200]

### 3.1.1 Overview

Figure 3 illustrates the overall level of disclosure of climate-related information by category in publicly available 2019 annual reports of Deloitte Top 200 companies.

Figure 3: Deloitte Top 200 companies disclosure of climate-related information by category

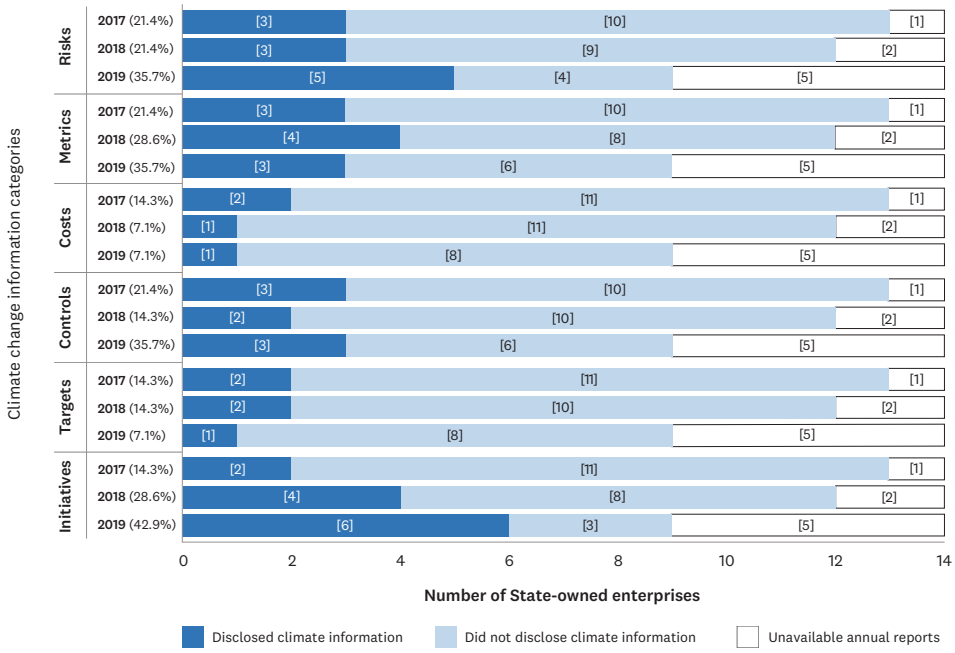


## 3.2 State-owned enterprises [14]

### 3.2.1 Overview

Figure 4 illustrates the overall level of disclosure of climate-related information by category in publicly available 2019 annual reports of state-owned enterprises.

Figure 4: State-owned enterprises' disclosure of climate-related information by category

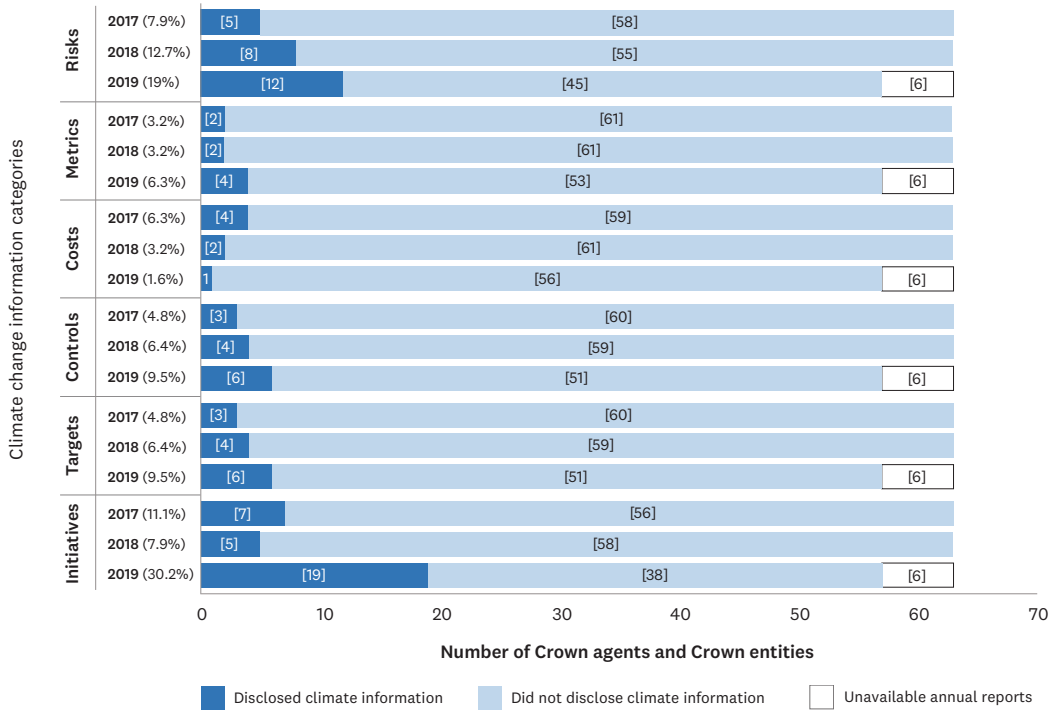



## 3.3 Crown agents and Crown entities [63]

### 3.3.1 Overview

Figure 5 illustrates the overall level of disclosure of climate-related information by category in publicly available 2019 annual reports of Crown agents and Crown entities.

Figure 5: Crown agents and Crown entities' disclosure of climate-related information by category

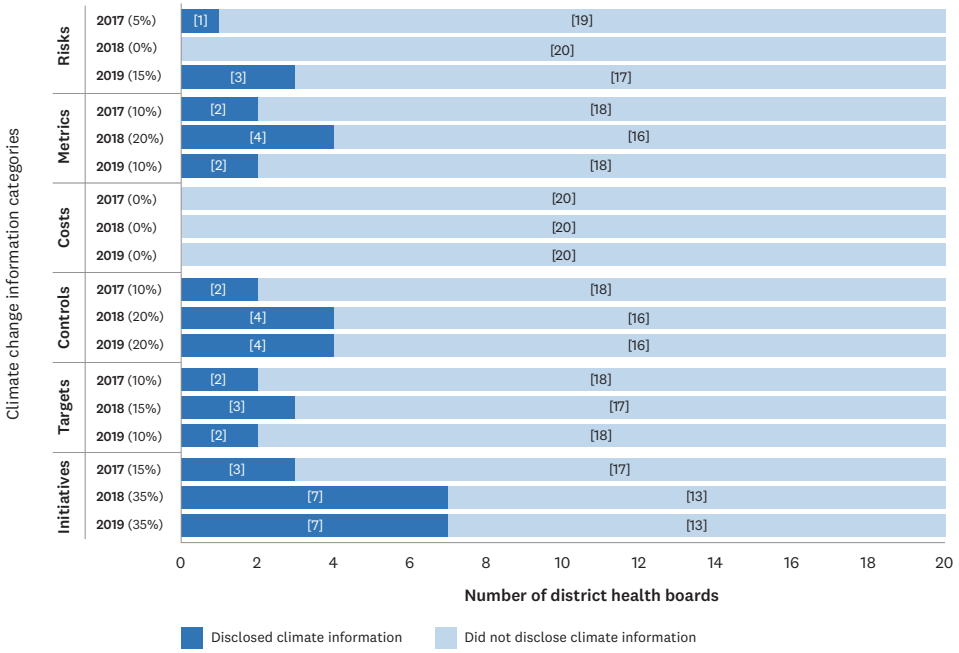


## 3.4 District health boards [20]

### 3.4.1 Overview

Figure 6 illustrates the overall level of disclosure of climate-related information by category in publicly available 2019 annual reports of district health boards.

Figure 6: District health boards' disclosure of climate-related information by category

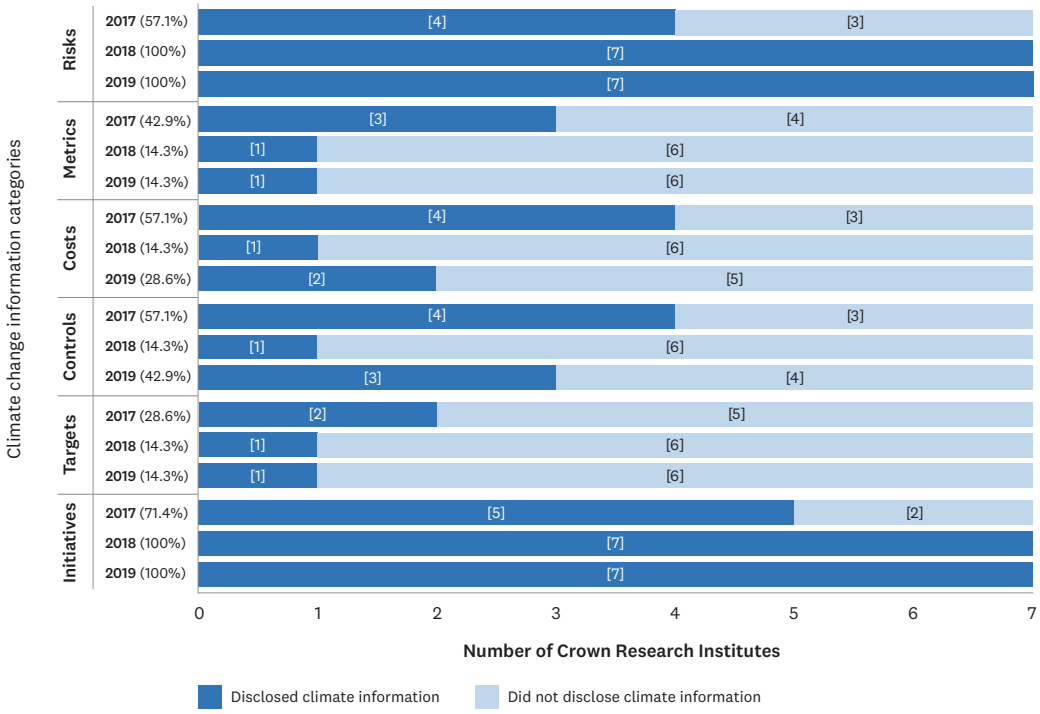



## 3.5 Crown Research Institutes [7]

### 3.5.1 Overview

Figure 7 illustrates the overall level of disclosure of climate-related information by category in publicly available 2019 annual reports of Crown Research Institutes.

Figure 7: Crown Research Institutes' disclosure of climate-related information by category

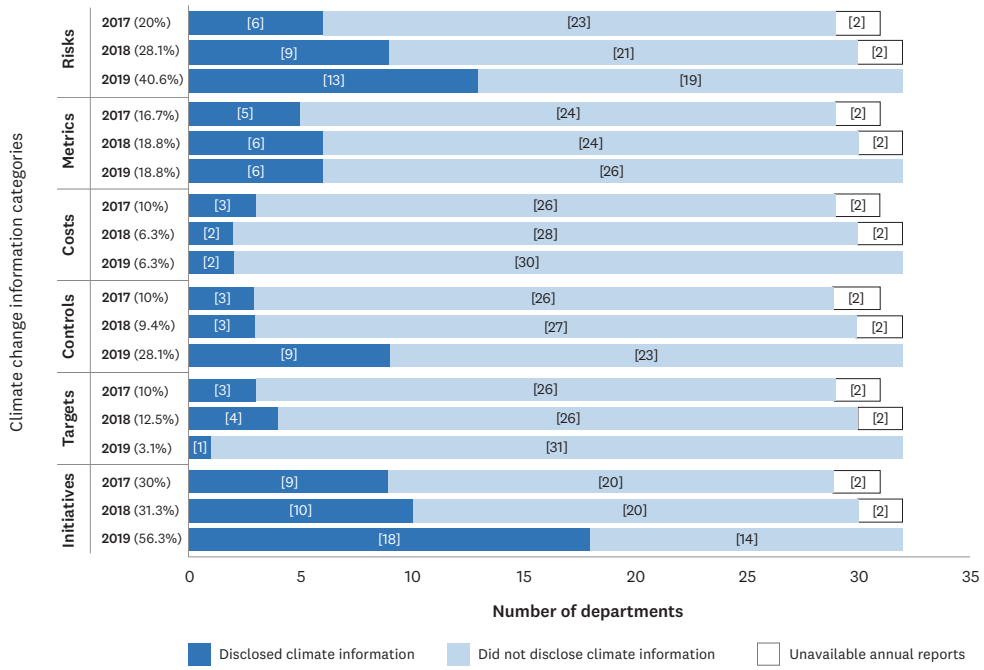


## 3.6 Government departments [32]

### 3.6.1 Overview

Figure 8 illustrates the overall level of disclosure of climate-related information by category in publicly available 2019 annual reports of government departments.

Figure 8: Government departments' disclosure of climate-related information by category

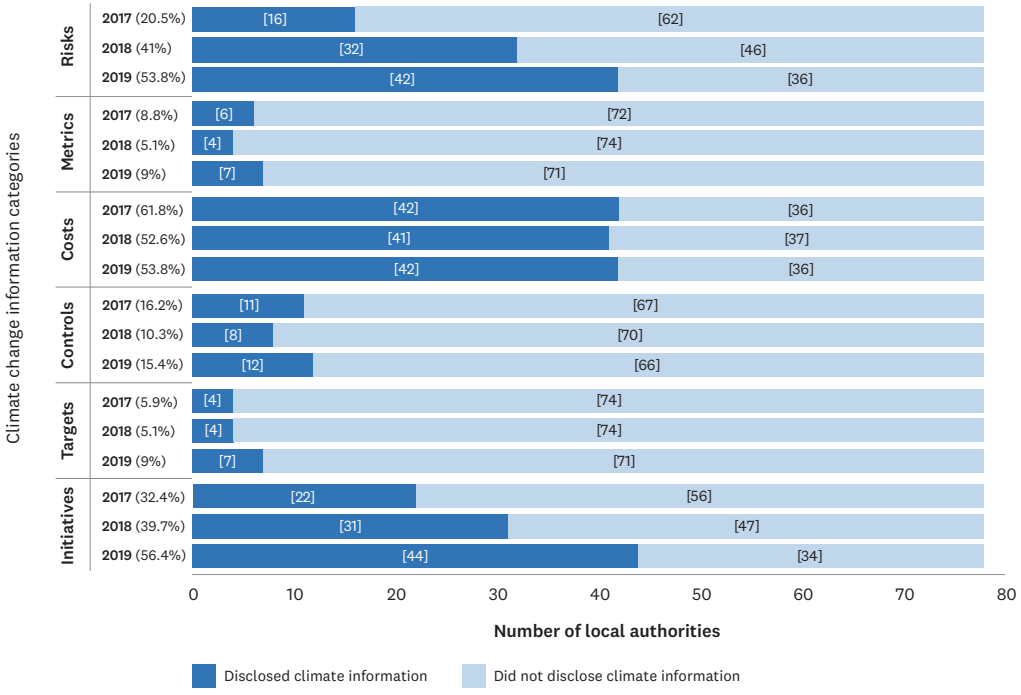



## 3.7 Local authorities [78]

### 3.7.1 Overview

Figure 9 illustrates the overall level of disclosure of climate-related information by category in publicly available 2019 annual reports of local authorities.

Figure 9: Local authorities' disclosure of climate-related information by category



# 4.0 Observations

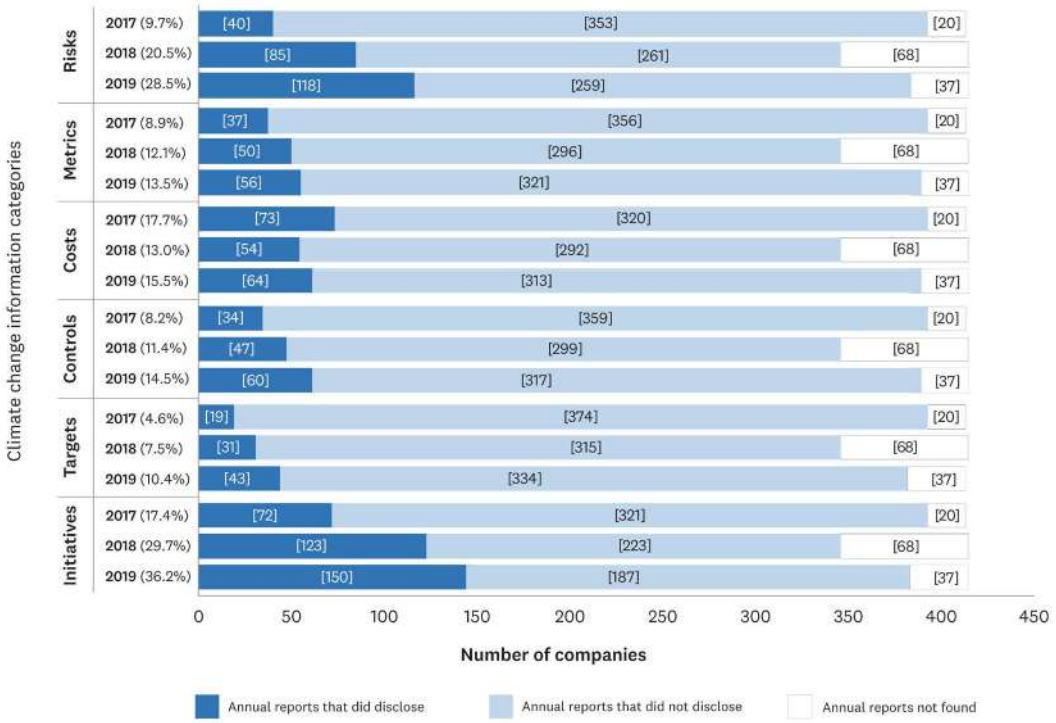
This section contains key observations about the data analysed in this research.

**High level observations**

Out of the 377 analysed 2019 annual reports, 190 [50.4%] did not disclose information for any of the six climate-related information categories: climate-related risks, emission metrics, emission costs, emission controls, emission targets and climate-related initiatives.

Figure 10 below illustrates the types of climate-related information disclosures made by the remaining 187 [49.6%] entities, indicated by the navy bars. While climate-related disclosures have increased since this research began in 2018, there is still plenty of room for improvement.

Figure 10: Overview comparison of the uptake of climate-related information in the annual reports of seven types of entities between 2017-2019




Notes:

7. A set of financial statements on its own does not meet the definition of an annual report (see s 211 of the Companies Act 1993).
8. The percentages in round brackets refer to the percentage of actual disclosed climate-related information against the number of possible annual reports. This means in Row 1, for example, 40 divided by 413 equals 9.7%.
9. The numbers in square brackets refer to the number of annual reports (including those that disclosed, did not disclose and unavailable annual reports).
10. Disclaimer: When interpreting these results, it should be kept in mind that a very low threshold was applied when deciding whether information constituted climate-related information or not.
11. The seven types of entities are Deloitte Top 200 companies, Crown agents and Crown entities, Government departments, Crown Research Institutes, State-owned enterprises, local authorities and district health boards.

**General observations**

- **More entities are making climate-related disclosures**
  Approximately 5.4% more entities are reporting climate-related information in their 2019 annual reports than in their 2018 annual reports (55.8% in 2018 minus 50.4% in 2019 annual reports).

  As mentioned above, 190 [50.4%] of the analysed 2019 annual reports did not disclose any climate-related information. In comparison, 231 [55.8%] of the 414 2018 annual reports analysed did not disclose information for any of the six climate-related information categories.

- **Disclosure of risks increased significantly in 2019**
  The most disclosed climate information categories in 2019 annual reports were climate-related initiatives [36.2%] and climate-related risks [28.5%]. The percentage of climate-related risks disclosed in 2019 (28.5%) had increased significantly from previous years (20.5% in 2018 and 9.7% in 2017).

- **Disclosure of emission costs have decreased since 2017**
  There was an overall increase in disclosures across all climate information categories expect for emission costs (15.5% in 2019 compared with 13.0% in 2018 and 17.7% in 2017).

**Specific observations**

- **Deloitte Top 200 companies only**
  Of the 174 2019 annual reports from Deloitte Top 200 companies:

  Four climate information categories increased in 2019:

  1. emission targets (12.5%), up 6% from 2018 annual reports;
  2. climate-related risks (18%), up 4% from 2018 annual reports;
  3. emission costs (8%), up 3.5% from 2018 annual reports; and
  4. emission metrics (16.5%), up 1.5% from 2018 annual reports.

  Two climate information categories decreased in 2019:

  5. climate-related initiatives (24.5%), down 9.5% from 2018 annual reports; and
  6. emission controls (11.5%), down 1% from 2018 annual reports.

  As the largest representative of the private sector in this research, Deloitte Top 200 companies had the highest number of individual cases of disclosed information. This is most likely due to the larger size of the data set, but could also be a result of greater reporting requirements. The Institute understands that the crossover between some Deloitte Top 200 companies and NZSX-listed companies results in greater levels of disclosed information due to there being more reporting requirements.

- **Local authorities**
  With the exception of local authorities, there was low disclosure of the costs associated with emissions across all entity types, with 61 of the 304 entities in total making this disclosure.

  Of those 64 2019 annual reports disclosing information on emission costs, 42 were from local authorities. This accounted for 65.6% of total disclosure on emission costs across all entities. Costs were disclosed in the form of emission units/carbon credits as part of non-tangible asset reporting in financial statements.

- **Disclosure of information by number of categories mentioned:**
  Only six entities made disclosures that contained climate-related information for all six categories (in the 2018 annual reports data set there were just four entities that made all six disclosures). The six companies with 2019 annual reports that disclosed information in all six categories were:

  1. Z Energy (Deloitte Top 200 company)
  2. Contact Energy (Deloitte Top 200 company)
  3. Synlait Milk (Deloitte Top 200 company)
  4. Ministry for the Environment (Government department)
  5. Manaaki Whenua – Landcare Research (Crown Research Institute)
  6. Dunedin City Council (Local authority)

  As Z Energy, Contact Energy and Synlait Milk operate in industries that are heavily dependent on natural resources, it is perhaps to be expected that entities would have higher levels of disclosures on climate-related information. This is due to the nature of their operations having both an impact on the environment and being vulnerable to changes within that environment. Similarly, Ministry for the Environment, Manaaki Whenua – Landcare Research and Dunedin City Council are examples of entities which choose to disclose climate-related information because it directly relates to their areas of activity. Each entity's 2019 annual report is excerpted under one of the disclosure categories in Appendix 1.

# Appendix 1: Examples of best practice across climate information categories

**1) Climate-related risks**

*Z Energy Annual Report 2019*, p. 40



Z Energy Annual Report 2019 The year that was ≡ Menu 40

**Climate change risks**

Forecasting future demand for fossil fuels becomes more complex when considering technology developments that may emerge over time. We use the BusinessNZ Energy Council scenarios as outlined on page 46 of this report.

As a company selling around 45 percent of New Zealand's total transport fuel; or put another way, primarily through the products we sell, nine percent of New Zealand's total emissions, Z is at risk from both the transition to a low-carbon economy and the physical impacts of climate change. However, as a downstream energy company, with no exposure to upstream drilling and extraction operations, we are well-placed to manage the change to a low-carbon economy.

There are also valuable opportunities to transition the company from fossil fuels to a low-carbon future and to do it in a way that's good for all our stakeholders.

We've been more deliberate in linking our overall risk profile to our direct and indirect exposure to climate change risks. With climate change being one of the material issues we focus on, we are working on the impact of, and adaptation to, climate change risks for Z. Our Sustainability team recently merged with the Strategy and Risk team in order to respond to these risks more deliberately.

Close to half the material topics we've reported on this year relate to management of our climate change risks. These topics are: Flick purchase, renewable energy, VUCA future, responsible consumption and production, climate action, increased regulation, supply chain resilience, ethical procurement and brand value. These topics are interrelated.

We manage risks associated with these topics to reduce the negative impacts on our capitals (our assets, our finances, our capability, our people and culture, our environment, and our place in New Zealand).

Waste measures

▼ 6% **2,523 tonnes**
Recycling — cardboard and paper
FY18: 2,681 tonnes

▼ 27% **912 tonnes**
Recycling — plastics, cans and glass
FY18: 1,250 tonnes

▼ 18% **385 tonnes**
Composting and organics
FY18: 471 tonnes

▲ 18% **2,523 tonnes**
Waste to landfill
FY18: 2,142 tonnes

▼ 3% **6,343 tonnes**
Total waste
FY18: 6,554 tonnes

These waste figures are estimated based on actual volumes from 70% of retail sites.

## NET POSITIVE FOR THE PLANET
## ENVIRONMENT

**OUR AIM IS TO HAVE A NET-POSITIVE IMPACT ON THE PLANET.**
**ACHIEVING THIS MEANS TAKING STOCK OF OUR CURRENT ENVIRONMENTAL FOOTPRINT AND THEN COMMITTING TO AND IMPLEMENTING ON-FARM AND OFF-FARM INITIATIVES THAT REDUCE GREENHOUSE GAS EMISSIONS, ELIMINATE WATER DEGRADATION, REMOVE WASTE AND IMPROVE THE WELFARE OF THE ANIMALS AND ECOSYSTEMS WE DEPEND UPON.**

### CLIMATE

Taking action on the climate crisis is an absolute necessity. We recognise New Zealand's commitment to the Paris Agreement and, as a significant emitter, we are committed to making a meaningful contribution towards that target. While we can't solve big environmental issues alone, we can take care of our own backyard and inspire others to meet similarly high sustainability targets.

To provide us with a baseline against which we can measure our climate initiatives, we have undertaken our first Greenhouse Gas (GHG) Inventory. The externally audited report shows that in the period from 1 August 2017 – 31 July 2018 our GHG emissions total was 912,731 tCO2e.

Our inventory profile highlights the use of coal (108,301 tCO2e) and sea freight (30,162 tCO2e) as the two largest sources of off-farm GHG emissions, with electricity third (6,923 tCO2e).

Our on-farm emissions totalled 755,583 tCO2e – further broken down into a quantum of carbon dioxide, 119,758 (CO2-tCO2e); methane 442,268 (CH4-tCO2e); and nitrous oxide, 193,559 (N2O-tCO2e).

**ON-FARM ACTION**

**OUR GOAL:**
**35% REDUCTION IN GHG PER KILOGRAM OF MILK SOLIDS BY 2028, VERSUS 2017/2018 BASE YEAR**

OUR FY18 BASE YEAR PERFORMANCE: 11.87 KGCO2E PER KILOGRAM OF MILK SOLIDS

We have been providing 100% of our farmers with their own unique GHG emissions profile since the 2017-2018 season. This information has provided us with a baseline to understand and improve our performance.

Farms supplying Synlait represent approximately 83% of our total GHGs. In the past there has been a consensus view that little can be done to reduce on-farm emissions; however, we think that breakthrough technology paired with best-practice farm management can result in substantial emissions reductions.

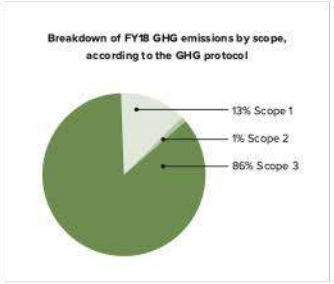
As an example of this, we have introduced a GHG reduction incentive payment into Lead With Pride™, our internationally accredited ISO 17065 dairy farm assurance system. Lead With Pride™ certified farmers are industry leaders committed to best practice farming standards. (See page 41 for a profile on Lead With Pride™ initiatives.) To achieve the incentive payment, farmers must create comprehensive farm-specific GHG management plans that demonstrate clear knowledge of GHG sources along with mitigation strategies. These are presented for evaluation at each farm's annual audit.

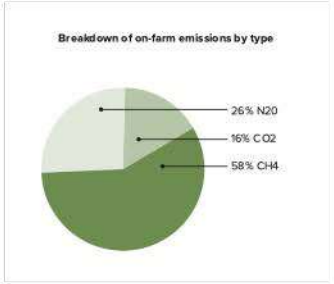
**OFF-FARM ACTION**

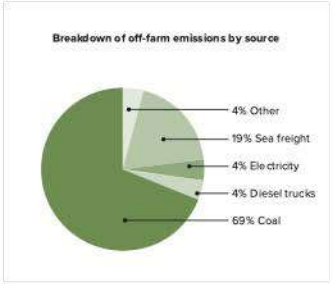
**OUR GOAL:**
**50% REDUCTION IN TOTAL GHG PER KILOGRAM OF PRODUCT BY 2028, VERSUS 2017/2018 BASE YEAR**

OUR FY18 BASE YEAR PERFORMANCE: 1.13 KGCO2E PER KILOGRAM OF PRODUCT

Our 17% total of off-farm emissions places us among a group of large emitters, primarily because of the energy intensive nature of our manufacturing processes and supply chain. Our sustainability strategy is re-imagining all aspects of our business for a low-emissions future, and a key part of this is the commitment to build no new coal-fired manufacturing facilities. See page 35 for information on the large-scale electrode boiler that was commissioned in March 2019 at our Dunsandel site. We also continue to work on strategies that will address the footprint of our existing coal infrastructure at Dunsandel.



**3) Emission costs**
*Ministry for the Environment Annual Report 2018/19*, p. 113



## Schedule of non-departmental expenses for the year ended 30 June 2019

| | Notes | 2017/18 Actual $000 | 2018/19 Mains Forecast* $000 | 2018/19 Actual $000 | 2019/20 Forecast* $000 |
|---|---|---|---|---|---|
| **Expenses** | | | | | |
| Grants and settlements | | 41,352 | 53,122 | 42,963 | 67,290 |
| Promotions | | 800 | 800 | 800 | 800 |
| Subscriptions and contributions to international forums | | 1,092 | 1,185 | 1,074 | 1,185 |
| Crown entity funding | | 25,369 | 25,217 | 25,517 | 26,117 |
| Levy disbursement | | 17,371 | 18,000 | 18,489 | 18,000 |
| Allocation of New Zealand Units | | 719,667 | 521,093 | 543,251 | 565,922 |
| Net changes in carbon price of New Zealand units | 6 | 462,273 | – | 224,494 | – |
| GST input expense | | 10,864 | 13,295 | 11,166 | 15,916 |
| Other | | 3,607 | 1,677 | 3,062 | 2,327 |
| **Total non-departmental expenses** | | **1,282,395** | **634,389** | **870,816** | **697,557** |

* The statement of accounting policies provides explanations of these figures which are not subject to audit.

Explanations of significant variances against budget are detailed in note 9.

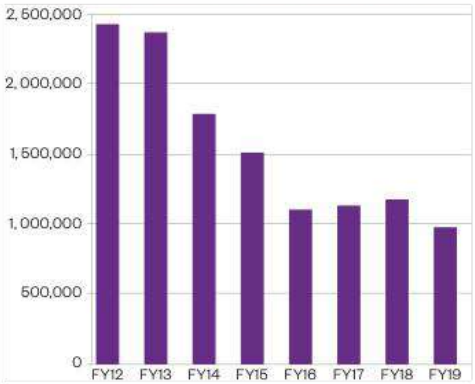
The accompanying accounting policies and notes form part of these financial statements. For a full understanding of the Crown's financial position and the results of its operations for the year, refer to the consolidated Financial Statements of the Government for the year ended 30 June 2019.

## 4) Emission controls

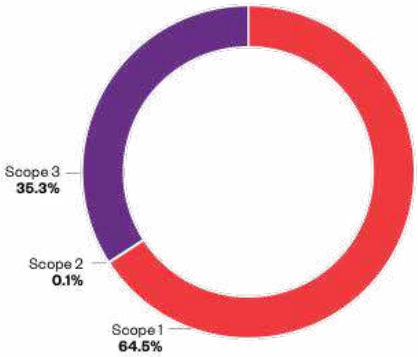
*Contact Energy Annual Report 2019*, p. 34

**ENVIRONMENTAL SUSTAINABILITY**

**Emissions from electricity generation ($tCO_2e$)**




**Total greenhouse gas emissions by Scope ($tCO_2e$)**




### Tracking emissions from generation

We follow the Greenhouse Gas Protocol, a global standardised framework for reporting on our emissions, which categorises emissions as Scope 1 (produced directly through our operations), Scope 2 (emissions from purchased electricity) and Scope 3 (emissions in our wider supply chain). Our complete emissions inventory can be found on our *website* and for a fuller summary go to *Emissions data* in the Other Disclosure section.

The majority of our emissions fall into Scope 1, from electricity generation at our thermal and geothermal operations and through our vehicle use. We monitor our direct emissions and other discharges to air in line with resource consents and reporting requirements under the New Zealand Emissions Trading Scheme. Accurate monitoring enables us to track progress against targets and ensure transparency in our operations.

This year, our emissions from electricity generation decreased by 16% on the prior year as a result of increased hydro catchment inflows and a nationwide shortage in gas supply which restricted thermal generation.

### Revising our emission reduction targets

This year we verified our emission reduction targets through the Science Based Targets initiative to ensure they are in line with the science required to limit global warming to 2 degrees. All targets have a base year of 2018. Our current target is:

- to reduce our Scope 1 and 2 greenhouse gas emissions by 30% by 2030
- to reduce Scope 3 emissions from use of sold products by 15% by 2030.

In addition to our science based targets, Contact has set the following business targets:

- to displace 1 PJ of fossil fuel with renewable energy by 2022
- to reduce our emissions intensity by 36% by 2030.

In late 2018, the Intergovernmental Panel on Climate Change, the United Nations' body for assessing science related to climate change, released a report saying that a 2 degree limit is not enough to prevent significant damage to society. In light of this, we are reviewing our current targets as part of our commitment to leading by example.

Delivering these targets requires us to execute our decarbonisation strategy to build more renewable generation to displace thermal generation. This means demand may increase before we have built new renewable generation, so we may see small increases in our emissions from using thermal generation to meet that need, before we see significant long term reductions.

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# Our carbon footprint

Given the focus of our business on sustainable use of natural resources, it is especially important that we manage our operational activities to minimise any adverse impacts on the environment and our communities.

We have been certified to the ISO14001 standard since 1998, meaning that we maintain systems to document and manage our environmental impacts. We have been certified carbon-neutral since 2011, meaning that we measure and manage our greenhouse gas emissions and pay to offset those emissions that we have not been able to eliminate. We maintain carboNZero certification through our subsidiary Enviro-Mark Solutions, which purchases certified carbon credits on our behalf.

We report on operational environmental indicators including air travel, vehicle travel, HFC refrigerant loss, other energy use and emissions.

We targeted a 15% emissions reduction in the 5 years to 2021. Following a period of declining emissions, this year our emissions from air travel and vehicle travel rose significantly, but our energy use decreased by 4%.

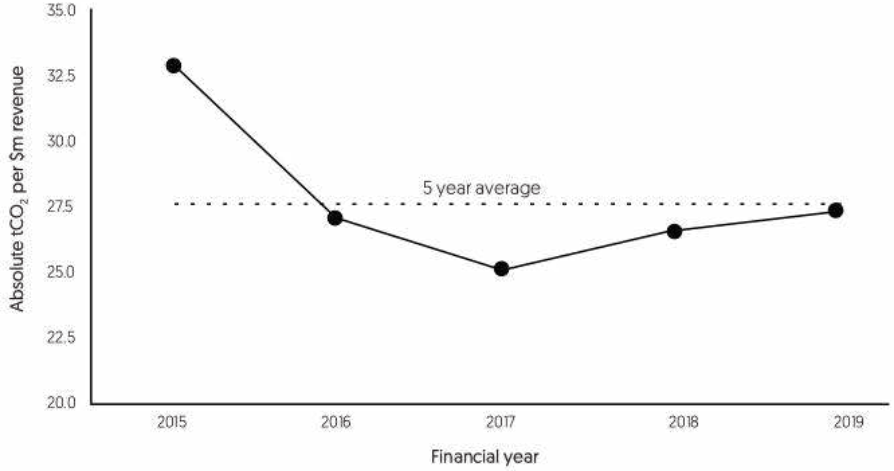
The increase reflects the challenge we face in encouraging our people to be well connected with the users of our science and our science collaborators, both in New Zealand and overseas. New entities in the science system have increased the demand for collaboration meetings, which mean staff travelling by air. Video technology does not yet substitute for face-to-face in workshops where new groups of people come together to develop new relationships and collaboration priorities.

Our goal is to reduce such travel while not compromising our business needs. We will advocate for the whole science sector to challenge its dependence on air travel for meetings.

5 YEAR AVERAGE
Absolute $tCO_2$ – **1,819**
Revenue [$m] – **66.29**
$tCO_2$ per $m – **27.44**

2019
Absolute $tCO_2$ – **2,168**
Revenue [$m] – **79.97**
$tCO_2$ per $m – **27.11**

CARBON EMISSIONS PER MILLION DOLLARS OF REVENUE OVER 5 YEARS



**6) Climate-related initiatives**
*2018/19 Dunedin City Council Annual Report*, p. 16



# Sustainability update | He pūroko whakapūmautaka

**The DCC is committed to its strategic principle of sustainability, that Dunedin works to become a sustainable city and that the DCC is a leader in encouraging the development of a sustainable city.**

## Background

Alongside Te Tiriti o Waitangi/the Treaty of Waitangi, sustainability is a strategic principle underpinning Dunedin's vision of being one of the world's great small cities. Te Ao Tūroa, Dunedin's Environment Strategy, sets the strategic direction for improving Dunedin's environmental wellbeing, and connecting the Dunedin community with sustainable ecology and local environmental actions.

A key focus has been on carbon reduction and bringing forward the city's goal to be net carbon zero by 2030 and to prepare to adapt to climate change impacts. The DCC continues to be engaged in two commitments that support carbon reduction, one for the wider city called Global Covenant of Mayors (formerly Compact of Mayors) and another focused on the organisation called CEMARS (certified emissions management and reduction scheme). Planning for future growth through the District Plan will also offer opportunities to reduce carbon emissions on a citywide level.

As part of the 2019/20 Annual Plan, Council approved the development of a climate resilience work programme. Adapting to climate change also continued to be a key part of DCC's business and planning in 2018/19. South Dunedin is one area where DCC has been planning major projects and upgrades to prepare stormwater and wastewater systems for more intense rainfalls that are expected.

The DCC continues its divestment from fossil fuels for the Waipori Fund and maintains a formal opposition to offshore oil and gas. The DCC will continue to take a sustainable approach to its activities and programmes by continuing to use resources responsibly, taking a long-term view, considering future generations and taking account of the social, economic, environmental and cultural effects of DCC's decisions.

## 2018/19 Update

This is the first year that two performance measures have been included to track progress of the Council's commitment to sustainability.

| Sustainability Indicator | 2018/19 | Māori stats 2018/19 |
|---|---|---|
| Percentage of residents agreeing that 'Dunedin is a sustainable city' | 54% (ROS, 2018/19) | 48% (ROS, 2018/19) |
| Percentage of residents agreeing that 'the DCC is a leader in encouraging the development of a sustainable city' | 43% (ROS, 2018/19) | 45% (ROS, 2018/19) |

## Highlights

Some of the highlights of the work undertaken by the DCC in the 2018/19 year include:

- Progressing to the final stage of the global Covenant of Mayors commitment and the development of the Dunedin climate action plan.
- Declared a climate emergency and brought forward the net carbon zero goal to 2030.
- Dunedin took the top accolade in the Keep New Zealand Beautiful Awards 2018, highlighting the work and projects across Dunedin, such as the beautification work, recycling projects and sustainable tourism.
- Sponsored the Great Kererū Count 2019, inspiring more people to care for the natural world and help achieve a healthy environment set out in Te Ao Tūroa.
- Preliminary development and scoping work for a DCC Corporate Sustainability Framework.
- Sponsored and supported the July 2019 Waste Jam, run by Startup Dunedin, which was a weekend long session aimed at innovative ways to examine waste management and minimisation.
- Facilitated the January 2019 Tackling Construction and Demolition Waste in Dunedin seminar, which brought together industry and local experts to look at demolition waste on a national and local level.

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