

# Emissions Reduction Plan

2023/24 – 2024/25

November 2023



**Te Kāwanatanga o Aotearoa**  
New Zealand Government

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# Background

New Zealand committed to worldwide efforts to avoid average global temperatures warming more than 1.5°C above pre-industrial levels under the Paris Agreement<sup>1</sup> which came into force in November 2016.

The Carbon Neutral Government Programme (CNGP) was established in December 2020 to speed up emissions reductions within the public sector and ensure the sector becomes carbon neutral from 2025<sup>2</sup>. Lead agencies are the Ministry for the Environment (MfE), Ministry for Business, Innovation and Employment (MBIE), and the Energy Efficiency and Conservation Authority (EECA).

The Ministry of Justice (the Ministry) is New Zealand's only public sector agency that works across all three arms of government: we work for the executive and the legislature, and we also support the independent judiciary.

The Ministry has one of the largest property portfolios in the public sector and includes courthouses and office buildings. We have more than 4,000 people working in about 100 properties across 58 towns and cities, delivering justice services nationwide.

The Ministry's greenhouse gas emissions have been independently verified and certified by Toitū Envirocare (Enviro-Mark Solutions Ltd)<sup>3</sup> since 2020/21.

Our emissions are reported to the CNGP every December and published in our [Annual Report](#).

## Purpose

The Ministry is committed to reducing its emissions and mitigating climate change. The CNGP requires all core-government agencies to reduce their gross greenhouse gas emissions using an Emissions Reduction Plan (ERP).

This ERP is intended to guide internal efforts to cut enough emissions to meet our reduction targets, to prepare the Ministry for a changing climate and to meet all CNGP reporting requirements.

It extends to 30 June 2025 so the Ministry can fully investigate our complex emissions portfolio and achieve the first significant CNGP milestones.

This is the second Ministry ERP and builds on the original published in November 2022. This updated ERP is based on findings of our 2022/23 carbon emissions audit. Improved data analysis used in this latest audit has refined our understanding of key emissions sources and what we can do to reduce them.

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<sup>1</sup>[Paris Agreement](#)

<sup>2</sup>[Public sector carbon neutrality from 2025](#)

<sup>3</sup>[Te Tāhū o te Ture Ministry of Justice | Toitū Envirocare \(toitu.co.nz\)](#)

## Our commitment

The Ministry is one of the largest emitters in central government due to the size and scale of our operations across the country. This means we have a responsibility to ensure we are taking action to reduce our emissions. It also means there is potential to achieve significant reductions.

The extent of emissions reductions we achieve over the next few years will be influenced by funding and other constraints. However, we are determined to keep our CNGP commitment and to ensure we play our part in reducing public sector emissions.

We are already experiencing the effects of climate change. Extreme weather events in Auckland and Hawke's Bay in early 2023 disrupted operations and damaged several of our properties and affected many kaimahi (staff) directly and indirectly.

It is still early in our emissions reduction efforts but our data collection and analysis are maturing in quality and breadth. We have already made considerable progress in understanding our emissions and how to reduce them. It will take a team effort to meet our reduction targets, and we are ready for the challenge.

## Our organisational boundary

The Ministry, in close consultation with the CNGP, has recently clarified the boundary for the emissions we are responsible for. The CNGP confirmed that the judiciary are not required to take part in the programme, and the Ministry is not required to report on judiciary and Crown witness emissions<sup>4</sup>.

Previously, emissions of the judiciary and Crown witnesses were counted as part of Ministry emissions, including in our 2022/23 emissions audit and annual report.

All data in this ERP refers to Ministry-only emissions unless it is specified that the judiciary and Crown witnesses are included in a table or chart.

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<sup>4</sup>Judiciary and Crown witness emissions relate to air travel and accommodation.

# Our reduction targets

## Gross emissions reduction targets

We have set the following emissions reduction targets:

- Reduce gross emissions by 21% by June 2025 compared to our 2020/21 baseline year.
- Reduce gross emissions by 42% by June 2030 compared to our 2020/21 baseline year

## Setting our targets

Our emissions reduction targets were developed using the CNGP Target-Setting Tool<sup>5</sup>, developed by the CNGP and Toitū Envirocare. It largely aligns with international best practice for individual organisations and limiting global warming to 1.5°C. The Ministry’s targets follow best practice under the guidance of the CNGP, MfE and Toitū Envirocare.

### Ministry of Justice emissions and reductions targets

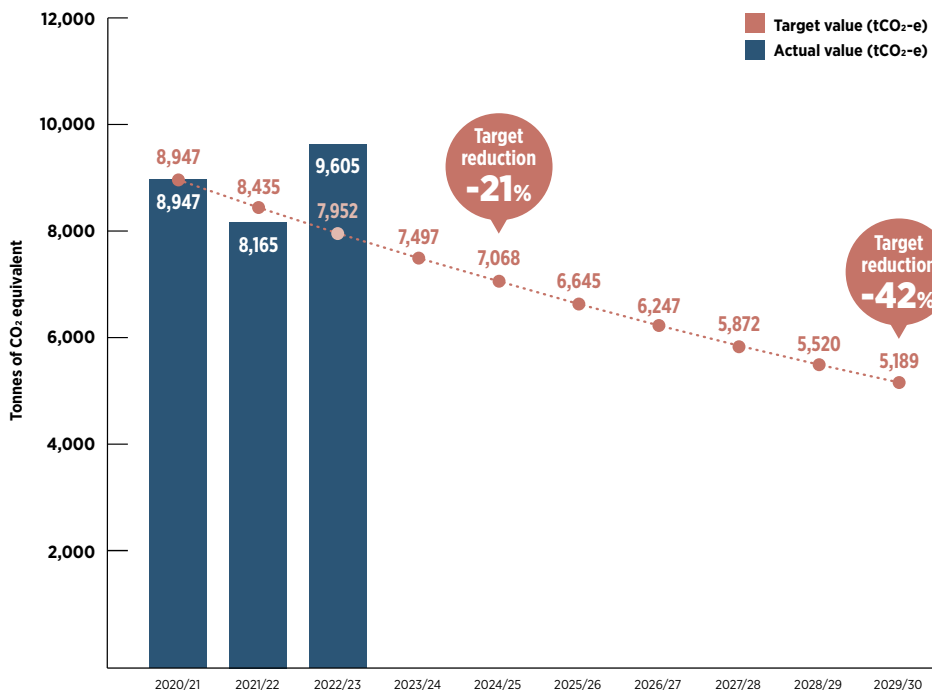


Figure 1: Progress towards our emission reduction targets

Figure 1 shows the Ministry’s gross annual greenhouse-gas emissions from 2020/21 to 2022/23, and our 2025 and 2030 reduction targets. It also shows the trajectory of reductions required to meet these targets. In 2022/23 we saw an increase in overall emissions of 7.4% from our 2020/21 base year and an increase of 17.6% from 2021/22. In 2022/23, our emissions were 35.9% over our 2024/25 target. This means we have work to do to get back on track. The revised ERP is our guiding document on how to get there.

<sup>5</sup>Tool for setting emissions targets | Ministry for the Environment

# Emissions by source

Ministry of Justice annual emissions by activity type (tCO<sub>2</sub>-e)

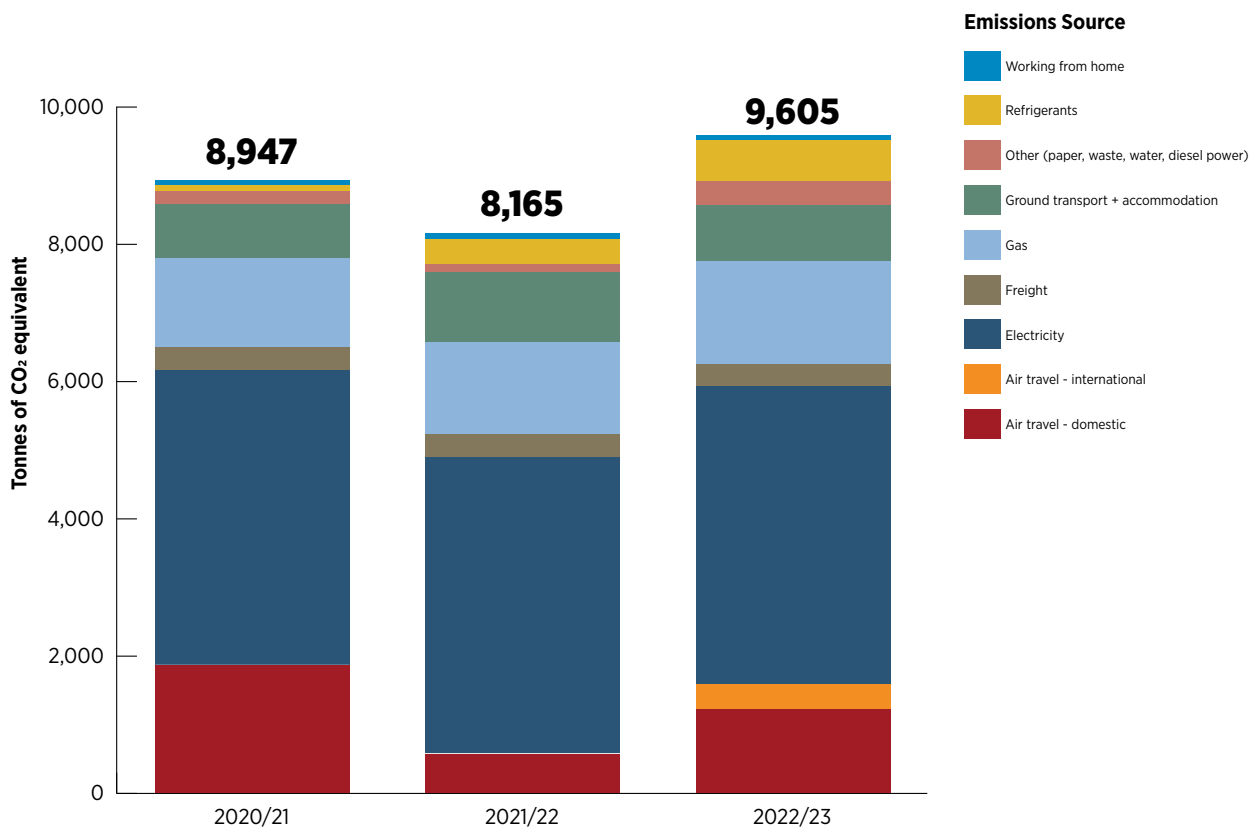
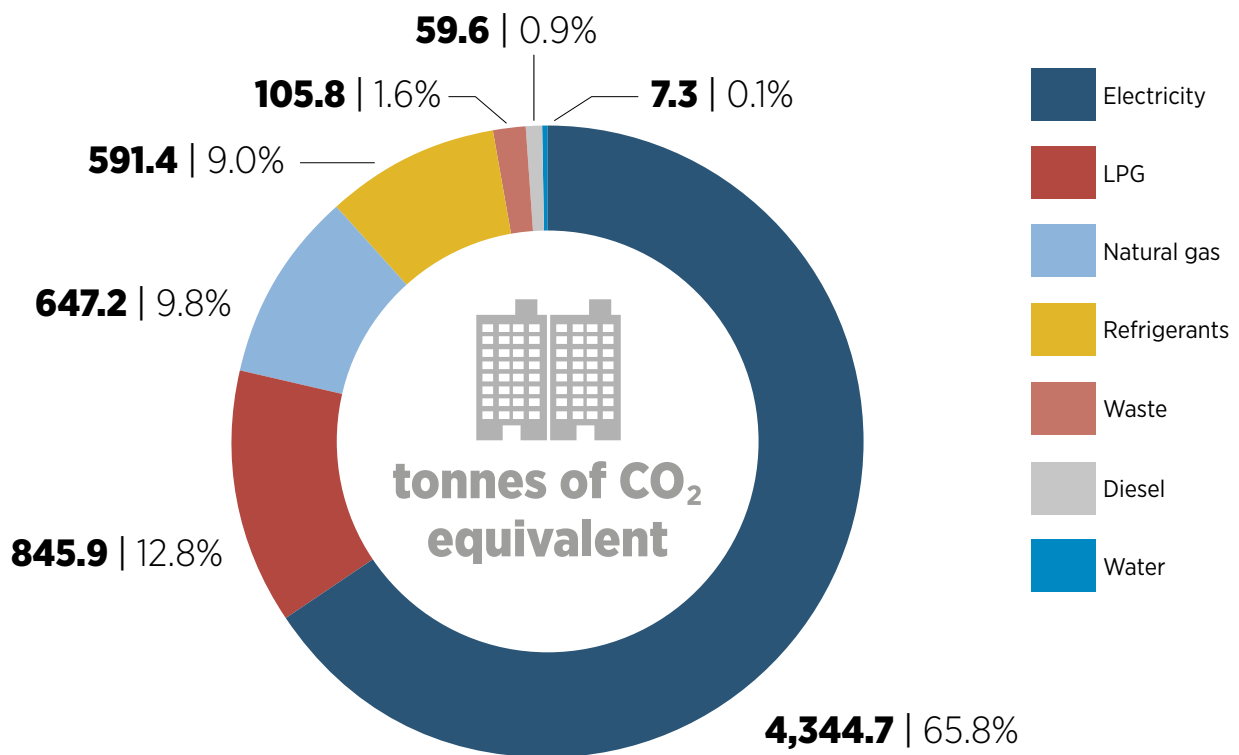


Figure 2: 2020/21 - 2022/23 emissions breakdown by source

Figure 2 shows our emissions for the past three years broken down by emissions source. The increase between 2021/22 and 2022/23 is mostly because international air travel resumed, and domestic air travel returned close to pre-COVID-19 levels following regional lockdowns in centres we fly to the most. There was also an increase in refrigerant gas emissions from undetected leaks in air conditioning systems. Electricity and gas are consistently high emissions sources because the Ministry has a lot of buildings.

## Building emissions



**Figure 3: Breakdown of building emissions**

Most of our emissions (68.73%) come from our buildings.

Figure 3 provides a detailed breakdown of these sources. Electricity and gas combined (both natural gas and LPG) account for 88.4% of building emissions, making these sources a priority for reductions.



# Travel emissions

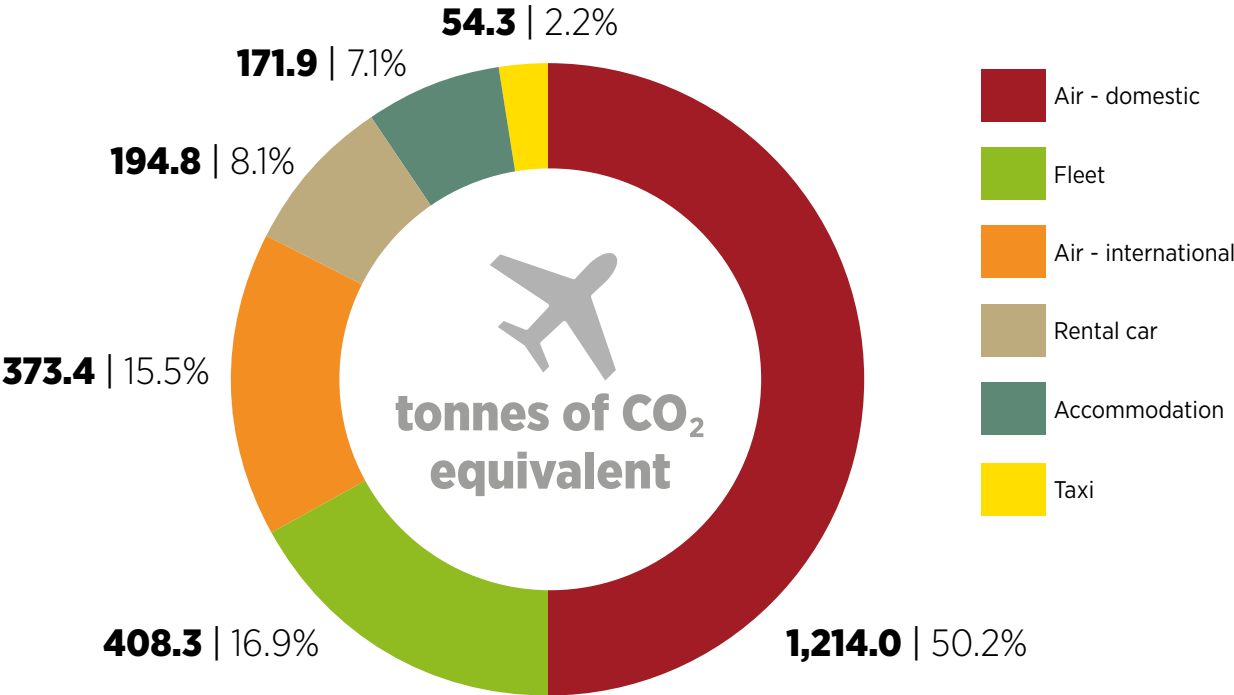


Figure 4: Breakdown of travel emissions

25.2% of our emissions come from travel. Our travel emissions come from a variety of sources and are further broken down in Figure 4. Domestic air travel makes up just over half of all travel-related emissions.

## Reduction potential

The Ministry has a complex emissions profile due to the nature and size of our operations and the core public functions and services we provide.

### Achieving our targets

Some emissions sources will be harder to reduce than others. We are choosing to focus first on our largest sources because they influence our emissions profile the most and have most potential for reductions.

To meet our 2030 target, our buildings will need major capital investment. This will save a lot in running costs by reducing energy consumption and reliance on fossil fuels long-term. For example, upgrading to LED lighting has a large upfront cost but returns on investment are rapid, including in terms of reduced emissions.

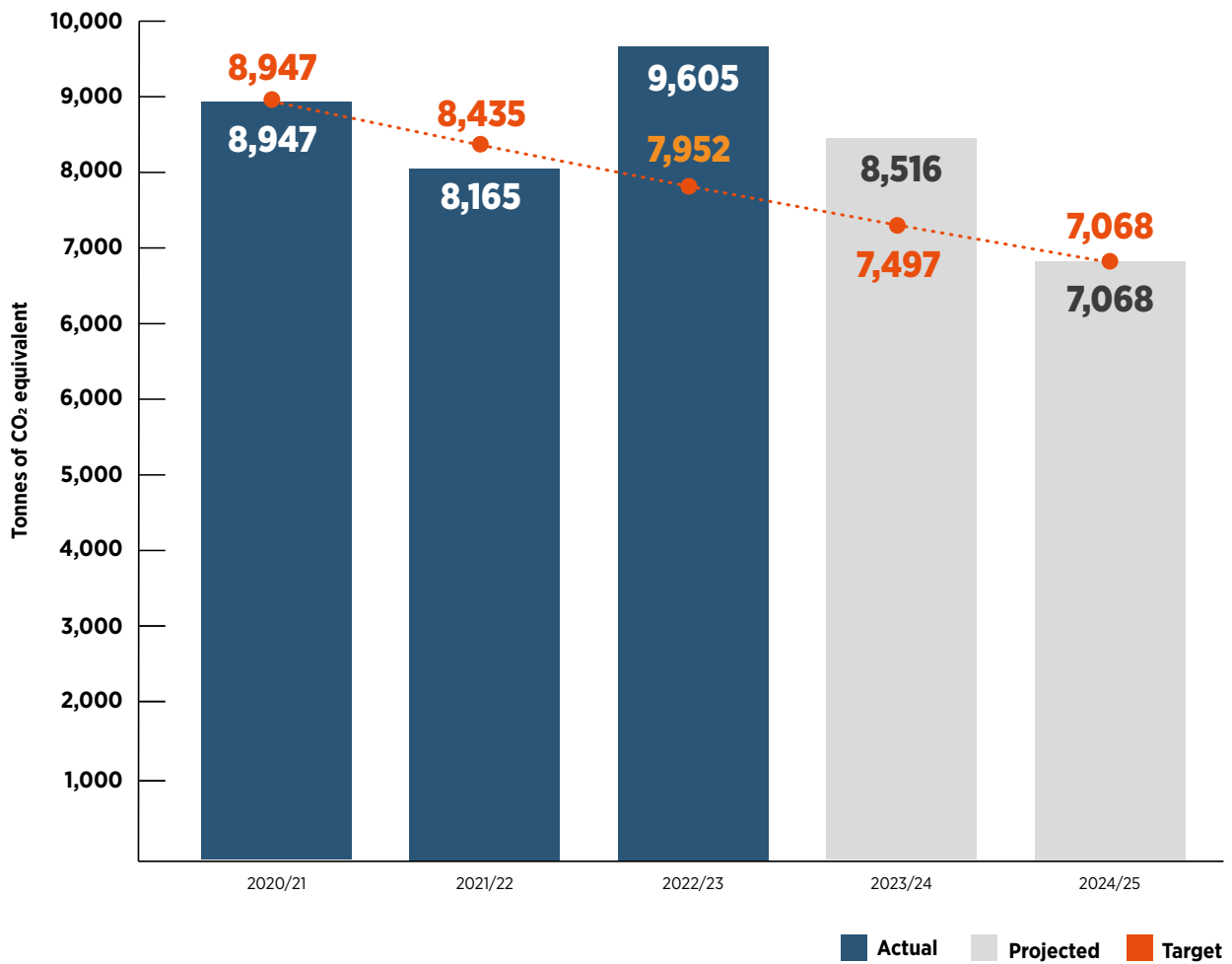
Our ERP aims to start on short-term initiatives while we explore potential for upgrading to low-emissions buildings.

### Possible reduction scenario to 2025

To better understand the extent of what's needed to meet our 2025 target, we developed a possible reduction scenario to estimate how much each emissions source could realistically be reduced by 2025.

We quantified the impact of each initiative detailed under Table 1 (Initiatives section). By adding up reductions in all categories and their respective timeframes, we determined a possible decarbonisation scenario represented in Figure 5. This scenario involves an annual reduction in the Ministry's emissions of 11.3% in 2023/24 and 17% in 2024/25. The higher reduction in 2024/25 reflects that certain big reduction projects will start then.

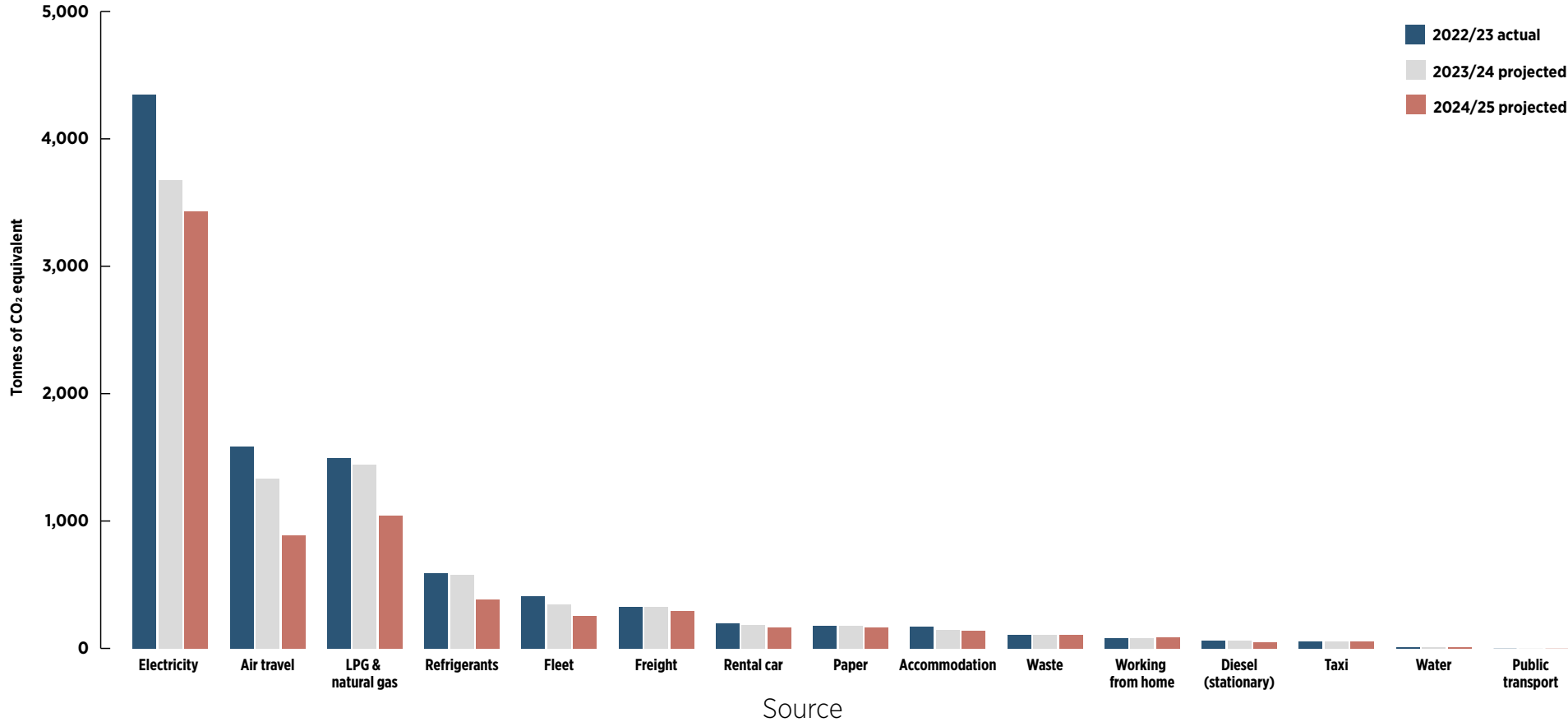
### Past and projected Ministry of Justice emissions against targets



**Figure 5: Possible reduction scenario**

This scenario reduces each source by an amount considered realistic (depending on budget allocations). The largest percentage reductions up to 2025 are anticipated in air travel, fleet, and refrigerants. At the same time, working from home and public transport emissions are projected to increase since these activities enable reductions in other areas. Figure 6 illustrates how each source could support the Ministry's overall decarbonisation pathway.

**Possible reduction scenario by source (2023 to 2025)**



**Figure 6: Possible reduction scenario by source**

It is important to note that certain initiatives could deliver more emissions reductions than expected in this scenario, while others may fall short. For example, delays in a gas-boiler replacement project could mean we have to lift reduction goals in other areas. We will review progress in each source and adjust the scenario accordingly.

# Initiatives

## Emissions reduction initiatives

This section gives an update on existing and new emissions-reduction initiatives.

**Table 1: Emissions reduction initiatives**

Source and objective	Initiative	Status / target completion date
<b>Electricity</b> Reduce electricity consumption across our sites	<b>Energy conservation:</b> a range of initiatives are being explored to reduce energy waste, and will lead to long-term reductions in both operational spending and emissions. Scoping is based on smart meter data where it's available, as well as electricity bills. We are also starting to use mobile sensors (that measure temperature, light and air quality) to spot inefficiencies. We plan to:  Improve scheduling of lighting, ventilation, heating, and cooling systems to minimise energy use when buildings or certain rooms are empty. We have already identified significant ways to reduce electricity use overnight, on Sundays and public holidays.  Upgrade and connect existing Building Management Systems (BMS) for better control and the best use.  Introduce occupancy sensors or set shutdown timers where systems cannot be scheduled  This work needs a detailed understanding of how our sites are used (such as when they're open or in use) to avoid badly affecting staff, court users or the public.	Exploration in progress.  This will be an ongoing initiative as part of Facilities Management to keep optimising our electricity consumption.
	<b>Energy audits:</b> with support from EECA, we commissioned a first energy audit at Palmerston North District Court which found major opportunities for reducing consumption and we plan to commission energy audits at further sites.	Started  Ongoing
	<b>LED upgrades:</b>  Through a cost sharing agreement with the landlord, LEDs are being installed at National Office between November 2023 and January 2024. This is expected to cut the site's energy use for lighting by 85%.  Initial inquiries into a LED upgrade at Palmerston North District Court indicate promising returns on investment for both emissions and operational spending.  Further LED upgrades will be investigated and installed.	In progress

Source and objective	Initiative	Status / target completion date
	<p><b>Replace inefficient equipment and infrastructure:</b> Ongoing maintenance and repair works are an opportunity for upgrading to more sustainable infrastructure</p> <ul style="list-style-type: none"> <li>• upgrades to lifts (eg Palmerston North District Court completed early 2023)</li> <li>• upgrades to air conditioning systems</li> </ul> <p>We will also develop electricity consumption estimates for smaller equipment to identify potential energy savings, such as understanding how much power screens and monitors use in standby mode.</p>	<p>Ongoing</p> <p>Estimates for small equipment to be developed</p>
	<p><b>Research other potential areas for energy-saving upgrades:</b> Candidates include solar panels, improved insulation, and rainwater harvesting.</p>	Ongoing
	<p><b>Building energy rating:</b> Conduct a NABERSNZ energy efficiency assessment for our National Office tenancy (Justice Centre in Wellington)</p>	2024
<b>Travel</b> Reduce and optimise staff travel	<p><b>Reduce travel budgets:</b> As part of government-wide cost efficiency measures, the Ministry is reducing travel budgets. Further changes driven by the cost saving programme are expected, and will reduce emissions in other types of travel (air, rental cars, taxis, accommodation).</p>	In progress
	<p><b>Monitor the influence of the updated Ministry Travel Policy and guidelines:</b> The Travel Policy update in August 2023 introduced new measures that may affect behaviour. There are stricter requirements for international travel approvals and fare class. Staff are encouraged to rent small or electric vehicles instead of petrol vehicles. We will monitor travel data to see if these policy updates are making a difference and if further restrictions are appropriate (eg on business class travel).</p>	Completed August 2023
	<p><b>Employee education:</b> Work to inform business units about their travel patterns and data (such as emissions, cost, destinations). This will help travellers and travel approvers to be more mindful of environmental impacts and to make decisions that mitigate travel emissions.</p>	2024

Source and objective	Initiative	Status / target completion date
	<p><b>Improve technology:</b> We have significantly improved technology to offer video conferencing as an effective alternative to traveling for meetings.</p> <ul style="list-style-type: none"> <li>• All Ministry sites have rooms equipped for video conferencing, and more are being added.</li> <li>• Staff get regular tech training to build confidence in using online meeting tools such as Microsoft Whiteboard, Teams and Sharepoint.</li> <li>• We can communicate with other participating government organisations using Teams so external calling will be introduced. This could further reduce the need for external meetings to happen in-person.</li> </ul>	Ongoing
	<p><b>Consult with the judiciary and sector partners:</b> We are working to identify whether certain court events can be held online, reducing travel. We will continue to consult the judiciary and sector partners to identify court events that could be held remotely, without compromising the quality of justice services to the public.</p>	Consultation on audio-visual technology started in 2023
	<p><b>Public transport:</b> We will promote use of public transport by employees on Ministry business through:</p> <ul style="list-style-type: none"> <li>• informing about public transport services on common routes such as between an office and airport)</li> <li>• providing pooled transport cards to teams who travel often</li> </ul> <p>Using public transport more is expected to reduce emissions from taxis and rental cars.</p>	Start in 2024
<b>Vehicle fleet</b> Electrify and optimise	<p><b>Vehicle electrification:</b> We continue to electrify our vehicle fleet. We bought 64 plug-in hybrid vehicles and 30 battery electric vehicles in the last financial year. This is anticipated to reduce fleet emissions by up to 39%. Our fleet now consists of:</p> <ul style="list-style-type: none"> <li>• 25% battery electric</li> <li>• 28% plug-in hybrid electric</li> <li>• 43% petrol hybrid</li> <li>• 4% petrol</li> <li>• 0% diesel</li> </ul>	Ongoing
	<p><b>Pool booking tool:</b> The Ministry is investigating a pool booking tool to encourage vehicle sharing across business units and make it easier.</p>	Ongoing
	<p><b>EV charging infrastructure:</b> As of September 2023, we have installed 70 chargers across 18 sites to support fleet electrification, and plan more.</p>	Ongoing

Source and objective	Initiative	Status / target completion date
	<b>EECA funding:</b> We have accessed funding from EECA's State Sector Decarbonisation Fund for recent infrastructure assessments and installations.	Completed
	<b>Optimisation review:</b> We will continue to review our fleet numbers, use and locations to ensure we have the right number of vehicles in the right places. This work may also identify opportunities to maximise use of lower emissions vehicles.	Ongoing
<b>Gas</b> Reduce consumption of fossil gas and LPG	<b>Energy conservation:</b> We can reduce gas consumption through improved scheduling and making best use of our gas boiler systems. This may involve adjusting boiler start-up times to maximise efficiency. Building Management System upgrades will help with this.	Data analysis started Beginning in 2024
	<b>Retiring gas boilers:</b> We are looking at technical solutions, such as heat pump systems, and priorities for retiring our gas boilers. We identified eight sites where gas boilers are reaching their end of life. An engineering study will determine precise technical requirements at a selection of sites and assess the capital spending needed.	Scoping has started Installations in 2024-2025 (subject to budget)
<b>Refrigerant gases</b> Reduce leaks	<b>Replace high risk equipment:</b> Old or damaged chillers used in air conditioning have the highest risk of leaking. We will prioritise replacement of large high-risk equipment and aim to ensure replacements use less powerful refrigerant gases.	Ongoing throughout 2024
	<b>Improve early leak detection:</b> Catching refrigerant gas leaks early is key to preventing a system's gas leaking into the atmosphere. To improve early detection, we plan to research options for installing leak detectors and to work with contractors to understand their maintenance checks for detecting leaks.	Ongoing
<b>Freight</b> Better understand our freight data	<b>Understand our freight data:</b> Freight is a core operational function of the Ministry because we are legally required to mail certain documents. We will investigate ways to improve efficiency in our freight use. This will depend on data from suppliers.	Start in 2024
<b>Diesel (stationary combustion)</b> Reduce consumption	<b>Diesel boiler replacement:</b> We will prepare to replace the Ministry's only diesel boiler, which is at Gore District Court, with a lower emissions alternative.	Scoping 2024 Installation from 2025
<b>Paper</b> Reduce consumption and increase recycled content	<b>Awareness campaign:</b> The Ministry's paper consumption is partly due to legal requirements to keep paper records for a certain length of time. A well-planned communications campaign can still help reduce our other paper use. This way, we will educate kaimahi about how much paper we use and share practical tips on how to use less.	2024
	<b>Increase the recycled content:</b> We will look at our current paper purchases to increase recycled content or reduce paper thickness.	2024 (subject to budget)



Source and objective	Initiative	Status / target completion date
<b>Waste</b> Minimise waste to landfill	<b>Waste audits:</b> Comprehensive waste audits were conducted at four sites in the Wellington region, including our National Office, to understand key areas for improvement and to improve the quality of our waste data. We intend to repeat these audits to track progress. We will look for opportunities to conduct waste audits at other sites around the country to gain a broader understanding of our waste profile.	Completed early 2023  To be repeated annually
	<b>Staff education:</b> Raise staff awareness and education about how to improve waste management. Provide accessible information to help ensure waste is put into the correct waste stream. In July 2023, the employee-led Sustainability Network ran the Plastics Free July campaign, and the network has since set up “keep cup” libraries at National Office to reduce single-use coffee cup waste.	Ongoing
	<b>Stocktake of waste and recycling provision at Ministry sites:</b> Work towards gathering detailed information on the waste and recycling collection arrangements at each Ministry site to identify what can be improved.	2024
<b>Water supply and wastewater</b> Improve our understanding	<b>Water meters:</b> Work with our facilities team to investigate the installation of building- or tenancy- specific water meters across more locations to better understand our consumption.	Start in 2024
	<b>New builds:</b> Consider opportunities for rainwater harvesting systems in new builds or major renovations.	Start in 2024
<b>Employee commuting (optional source, not included in our targets)</b> Understand and support	<b>Commuter survey:</b> We will run an internal commuter survey to understand our commuting patterns. This survey will also be an opportunity to understand how the Ministry can help staff make lower emission commuting choices.	2024
	<b>Improve end of trip facilities:</b> We will investigate where walking, running or cycling can be encouraged through better cycle parking, showers, lockers and drying rooms at Ministry sites.	From 2024
	<b>Research options and raise awareness:</b> We will investigate schemes that support sustainable commuting, and we will look to improve induction information about it for new kaimahi.	2024

Although remote working also produces emissions<sup>6</sup>, working from home reduces the transport emissions from commuting and business travel. Therefore, the Ministry does not propose a way to specifically reduce emissions from remote working.

<sup>6</sup>Emissions associated with an employee's laptop, screens, heating/cooling, and waste to landfill.

## Internal process improvements

In addition to emissions reduction initiatives, changes to internal processes and policies are needed to embed change and help us become a low emissions organisation.

Opportunities for process improvements and updates to relevant policies will be investigated. Table 2 provides examples of these.

**Table 2: Potential process improvements**

Objectives	Change levers	Business area
Create a shared understanding of what is essential travel	Business planning	Commercial Services
Reduce the collective time spent arranging travel across the Ministry	Staff education	
	Influenced by SLT	
Use unforeseen building works to upgrade facilities to energy efficient systems	Internal guidelines for reactive repairs	Property
Identify potential requirements for emissions reporting in our supplier contracts	Contract renewals	Commercial Services and Sustainability
Set out data standards and formats	Contract templates	
Explore methods of strengthening contractor requirements to check for refrigerant leaks	Contract renewals	Commercial Services / Property
	Relationship management	
Encourage kaimahi to think about initiatives in their areas	Intranet “sustainability” page with an ideas submission form	Communications

## Data improvement initiatives

We are continuously engaging with suppliers to improve the accuracy and detail of information they give us.

**Table 3: Data improvement initiatives**

Emissions source	Data improvement initiative
Commuting	Run a staff commuting survey
	Review destination facilities (cycle parking, showers, etc) across our sites
Diesel (stationary combustion)	Work with our maintenance contractor to inventory all diesel-powered sprinkler pump systems. Diesel consumption related to regular testing of these systems is currently little understood.

Emissions source	Data improvement initiative
Electricity	<p>Work with electricity suppliers to install smart meters at more locations</p> <p>Conduct NABERSNZ energy efficiency assessments at all large office spaces bigger than 2000 square metres and new office tenancies.</p>
Freight	<p>Engage with mail service providers to collect more data about items we ship through them. This would include better detail on letter and parcel types, geographical areas, and transport modes.</p>
ICT	<p>Ask cloud service providers for energy consumption data on services they provide the Ministry</p>
Taxis	<p>Work with our main taxi service provider to collect more detailed information about trips our staff take (origin, destination, vehicle fuel type, etc)</p>
Travel	<p>Review and improve information about trip purpose gathered at the booking stage to get a better understanding of discretionary travel.</p> <p>Changes could include making more fields compulsory or changing options of drop-down fields.</p>
Water	<p>Investigate installing building- or tenancy-specific water meters at large sites for a more accurate understanding of our water consumption.</p> <p>Ask local water authorities for more detailed reporting on our water supply and wastewater volumes.</p>
Working from home	<p>Collect better data on how often staff work from home. This may require engaging with various parts of the organisation to understand their flexible working arrangements.</p>

## Ongoing insights

The Ministry can now track main emissions sources more closely using regularly updated emissions dashboards. This will help us monitor progress of both the ERP and in meeting our emissions targets.

With monthly or quarterly emissions reporting (depending on the data source), we will be able to detect early on if we are on track to meet our targets and, if we are falling short, to take action to catch up.

# Implementation

## Financial implications

This Plan has not been costed yet. Next steps involve developing business cases to identify costs. Progress on both business cases and initiatives will require consultation.

## Stakeholders

**Table 4: Stakeholders**

Role	Responsibilities
Deputy Secretary, Corporate and Digital Services	Ministry of Justice Strategic Leadership Team sponsor, oversee, champion behaviour change, and support
Strategic Leadership Team and Senior Management Team	Support and champion behaviour change
General Manager, Property	Direct and support
Manager, Property Strategy and Planning	Direct and support
Principal Sustainability Advisor, Property Strategy and Planning	Activate and implement
Senior Sustainability Advisor, Property Strategy and Planning	Implement, advise, and support
Assets and Facilities Management	Lead on building, energy, and infrastructure initiatives
Commercial Services	Lead on fleet, travel, and procurement initiatives
Communication Services	Advise and support on communications and engagement
Finance	Provide data
People leaders	Encourage, support
Employees	Individual actions, engage and share ideas
Employee-led networks	Engage, share ideas, champion behaviour change, advocate
Judiciary	Provide feedback
Other public service agencies	Provide feedback, data, support and advice
Suppliers	Provide data
Other external stakeholders	Provide feedback, data, support, and advice

## Monitoring & review

We will measure our progress internally by regularly reporting to our Senior Leadership Team on our main emissions sources.

We will report progress as part of the CNGP reporting requirements, including in our Annual Reports and December report updates.

## Key risks and mitigations

As the Ministry is early in its emissions reduction journey and manages a complex and broad portfolio, this Emissions Reduction Plan is subject to change as our processes and data capabilities become more advanced over time. The Ministry is unique in the essential justice services it provides for the New Zealand public over many sites. This means the Ministry's path to emissions reduction will not be smooth, and reducing emissions in some areas of our operations will be harder than in others. This will influence our overall rate of reduction.

Table 5 highlights key risks in our emissions reduction efforts, and their intended mitigations.

**Table 5: Risks and mitigations**

Risk Type	Risk	Mitigation
Awareness	We are still building awareness of how this work programme will affect the Ministry. It is likely to involve changes to operations, processes, and infrastructure.	<p>We carried out an early consultation with internal stakeholders in the process of developing this plan.</p> <p>Once embraced by SLT, we will develop a wider stakeholder engagement and implementation plan targeted at the rest of the Ministry.</p>
Slow behaviour change	Behaviour change may be too slow across the organisation as employees have other priorities or prefer sticking to existing habits.	<p>We will communicate the co-benefits of emissions reduction projects (eg cost savings, Ministry reputation, sense of having an impact).</p> <p>Senior leadership and senior management will model the change required to meet our targets.</p>
Budget constraints	Limited funding is available to upgrade infrastructure for low emissions solutions. There may not be enough available funding to implement all the upgrades needed to meet our building emissions targets.	<p>Champion the shared benefits of emissions reduction projects to attract more internal funding. For example, improving the energy efficiency of our buildings saves money as well as reduces emissions. Keep talking to EECA with the aim of funding or fast-tracking more emissions reduction projects.</p> <p>Explore other sources of funding.</p>

Risk Type	Risk	Mitigation
Climate risk	There are significant climate-related risks to our operations. These include damage and access to properties due to extreme weather events.	This area of work is in an exploratory phase and requires significant consultation, external expertise, and investment to fully understand our climate-related risks.
CNGP Offsetting/Emissions payments	The Ministry's emissions are large so unless we reduce our emissions significantly, costs of offsetting annually will be high.	<p>Reduce emissions as much as possible, and at an accelerated rate where possible. Monitor progress closely and forecast offsetting costs if necessary.</p> <p>The price of emissions payments is unknown at this stage and subject to Cabinet decisions.</p>
Infrastructure	Due to historic lack of investment and ageing infrastructure at some sites, implementation of low emission technology could be difficult and costly.	<p>Review opportunities for cross-sector and cross-government collaboration.</p> <p>We have applied for and received funding through the EECA for decarbonisation projects.</p>
Operations	To provide our services to the public, the Ministry has a broad range of essential operations, some of which may not be compatible with emissions reductions.	<p>We will focus on areas we can influence.</p> <p>Emissions reduction initiatives will be designed to avoid reducing access to justice.</p>
Resource	There are currently two full-time staff focused on sustainability and emissions reductions.	More positions may be investigated as workload increases.

# Appendix

Technical information is collated in here to keep the ERP easy to read and the focus on the actions the plan proposes.

## CNGP requirements

Technical information is part of reporting required by the CNGP.

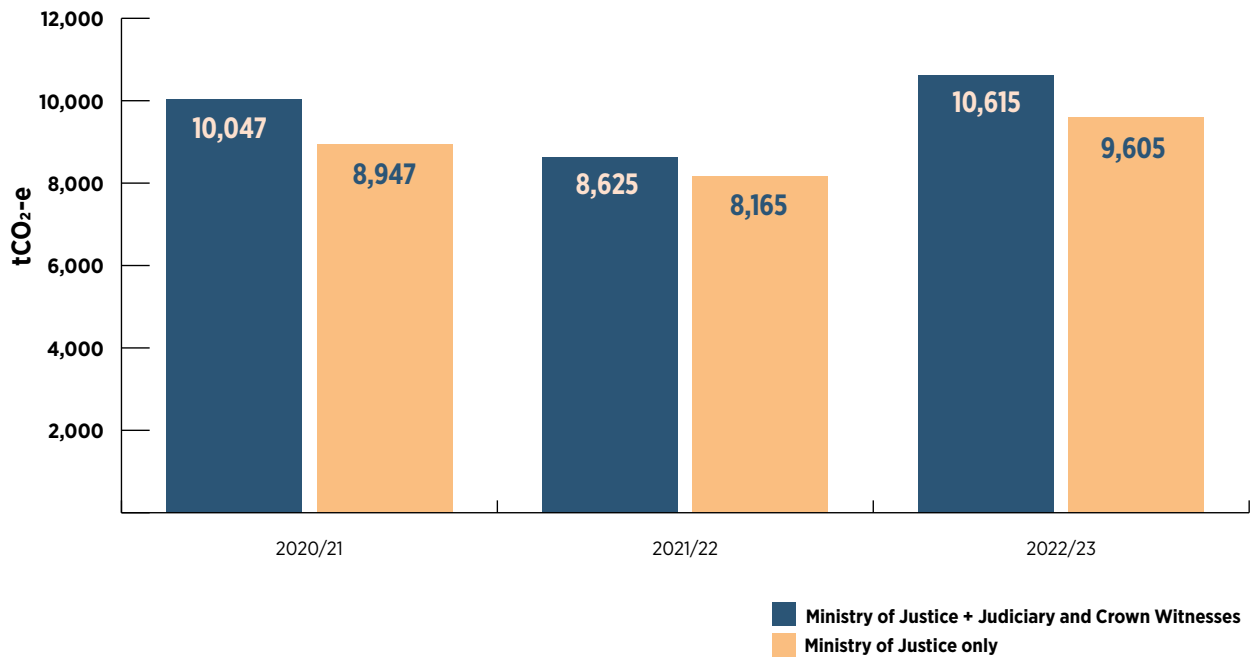
**Table 6: Checklist of CNGP requirements**

Requirement	Location where this requirement is met
Any data gaps or significant assumption of emissions sources	Data gaps and assumptions, Appendix page 33
Excluded source(s), and reason(s)	Excluded sources, Appendix page 32
Plans for improvement to inventory over time	Data improvement initiatives, page 22
	Excluded sources, Appendix page 32
Contextual information about your targets such as the level of ambition and achievability, reduction potential of your organisation, and key opportunities/barriers the organisation faces.	Our organisational boundary, page 5
	Our reduction targets, page 6
	Reduction potential, page 11
Commentary on alignment or non-alignment to 1.5C emissions reduction pathway	Setting our targets, page 6
Key reduction initiatives the organisation is implementing or planning	Initiatives, page 15
Commentary on progress against targets compared to base year	Progress towards our targets, page 7
Integration of targets and reduction initiatives within the organisation, ie a description of the way in which your organisation has committed to your targets and reduction initiatives.	Our commitment, page 5
	Implementation, page 25

## Total annual emissions

For comparison, Figure 7 shows emissions with and without the judiciary and Crown witnesses.

### Total annual emissions (tCO<sub>2</sub>-e)



**Figure 7: Total annual emissions**

In our 2020/21 base year, the Ministry (excluding the judiciary and Crown witnesses) emitted 8,947 tonnes of carbon dioxide equivalent (tCO<sub>2</sub>-e). In the following year our emissions decreased to 8,165 tCO<sub>2</sub>-e, as our operations were affected by COVID-19 more significantly than the previous year due to regional lockdowns. In 2022/23 our emissions increased to 9,605 tCO<sub>2</sub>-e.

## Potential for reducing the top sources

The Ministry's three largest emissions sources are:

- Electricity, generated by our large property portfolio
- Domestic air travel, generated by staff, contractors and other Ministry-related travellers
- Gases, generated by our large property portfolio

These sources are the priority areas for our ERP, in addition to the work programme already being undertaken to electrify our vehicle fleet.



**Table 7: Reduction potential of top three emissions sources**

CNGP categories for assessing potential reduction	Emissions source	Explanation
High potential – (reduction can be achieved through behaviour/policy change; alternative technologies exist; and/or required funding is available)	Domestic air travel	Reducing domestic air travel does not require significant investment, however, we fly frequently for operational needs and obligations. Reductions will largely rely on making travel budgets smaller. Reductions could be also made through behaviour and policy changes, and more use of technology for effective online meetings. Reducing domestic air travel will need to focus on flights that are not related to the essential operations of the courts.
High potential – (but requires significant additional funding)	Electricity Gas	Both electricity and gas have high potential for emissions reductions. This will require significant up-front investments to achieve long-term reductions and cost-savings.
Limited potential – (with existing technologies and/or behaviour change)	N/A	
Difficult to reduce – (due to lack of alternative technologies; reduction would impact significantly on core operations; and/or reduction potential has already been reached)	N/A	

## Independent verification

Our emissions have been independently verified by Toitū Envirocare (Toitū) since 2020/21 and we have achieved the Toitū carbonreduce Certification<sup>7</sup> for the past three years. We will continue to measure and manage - and aim to reduce - our carbon emissions in line with international standard ISO14064-1:2018.

## Excluded sources

No mandatory emissions sources have been excluded from our greenhouse gas emissions inventory. Table 8 sets out non-mandatory scope 3 emissions sources that are currently not measured and reported, but their inclusion will be investigated in the future.

<sup>7</sup>This certification accurately measures an agency's greenhouse gas emissions, and provides guidance on how to put strategies in place to manage and reduce impacts.

In some areas, we could not report on some emissions sources because we do not have data. We will therefore ask more suppliers (eg ICT cloud service providers) for environmental data on the services they provide to the Ministry or collect the data ourselves (eg through an employee commuter survey). Once we have enough quality data to calculate emissions, we will add these emissions sources to our inventory.

This work may lead to an increase or decrease in calculated emissions depending on the source. Improved accuracy and detail will also give us greater insights on how the Ministry can reduce these emissions.

**Table 8: Excluded non-mandatory sources**

Emissions source	GHG emissions category
Data servers	Category 4: Indirect GHG Emissions from Products Used by the Organisation
Professional services	Category 4: Indirect GHG Emissions from Products Used by the Organisation
Staff commuting	Category 3: Indirect GHG Emissions from Transportation
Office stationery	Category 4: Indirect GHG Emissions from Products Used by the Organisation
Catering	Category 4: Indirect GHG Emissions from Products Used by the Organisation

## Data gaps and assumptions

**Table 9: Main data gaps and assumptions**

Emissions source	Uncertainties or assumptions around our data and evidence
Stationary combustion	Data is missing for most diesel sprinkler systems. This is a significant gap as there could be 10 to 20 sites with these systems. We don't know enough yet about the number of systems and their diesel consumption (through regular testing) to make an estimate.
Mobile combustion (incl. company owned or leased vehicles)	Fuel cards data is expected to capture most transactions.  Petrol transactions obtained from financial systems (reimbursements) have higher levels of uncertainty but are a small portion of totals.
Leakage of refrigerants	Leakage data is based on top-up jobs recorded by our maintenance contractor. Since billing for the gases is involved and technicians weigh gases to know how much to put into the HVAC units, this data source is considered reliable.
Business travel - Transport (non-company owned vehicles)	We assume that air travel data sets from our travel management provider are complete and highly accurate.  Rental car datasets are mostly comprehensive and accurate, with some minor errors identified in coding vehicle models to vehicle classes.  Taxi and car hire transactions obtained from financial systems (reimbursements) have higher levels of uncertainty but are a small portion of totals.

Emissions source	Uncertainties or assumptions around our data and evidence
Business travel - Accommodation	<p>Accommodation datasets from our travel management provider are assumed to be complete and highly accurate.</p> <p>Transactions obtained from financial systems (reimbursements) have higher levels of uncertainty but are a marginal portion of totals.</p>
Downstream freight - Paid by the organisation	<p>One freight provider could not provide detailed data, so emissions were estimated based on the number of items of each type shipped.</p> <p>Another provider did not provide any information, so emissions associated with their service were estimated based on financial transactions. This has higher uncertainty than the other freight datasets.</p> <p>Freight paid by Te Arawhiti could not be distinguished from the Ministry's freight apart from certain transactions, so it is assumed to be included by default.</p>
Working from home	<p>Estimates were based on 10 months of actual swipe card data (for office occupancy) at our National Office, as well as actual FTE and sick days statistics provided by the Ministry's People Insights team.</p> <p>Remote working at other sites than the National Office is not well understood and was therefore excluded. The level of remote working at the other sites will need to be better quantified in future inventories.</p>
Disposal of solid waste - Landfilled	<p>The waste factors calculated for each building category are based on real data from waste audits. Most buildings are assumed to be like the reference sites used.</p> <p>There are uncertainties around the average number of days courts and hearing centres are open in a year. In absence of this data point, a conservative (high) number of open days was used.</p>
Disposal of liquid waste - Wastewater	<p>Detailed invoice data for all sites was not available. In particular, the breakdown of water consumption, fixed charges, and wastewater volumetric charges is only provided by one supplier.</p> <p>We derived a spend based factor from real data at three model sites and applied this ratio to actual dollar spend data at all sites to obtain kilolitres.</p>

## Emissions intensity metrics

Note: this table refers to combined emissions of the Ministry, the judiciary and Crown witnesses.

**Table 10: Emissions intensity by FTE and expenditure**

KPI	Unit	2020/21	2021/22	2022/23
Emissions per full-time equivalent	tCO <sub>2</sub> -e per FTE	2.37	1.98	2.38
Total gross greenhouse gas emissions per operating revenue (\$millions)	tCO <sub>2</sub> -e per million (\$)	13.12	10.23	13.05

## Emissions by category

Table 11 shows our greenhouse gas emissions broken down by the four categories applicable to the Ministry. Emissions from electricity (Category 2) are consistently our largest emissions source due to our large number of sites. Direct emissions (Category 1) have increased due to improved data accuracy for some sources. Transportation emissions (Category 3) have increased from last year but decreased from our baseline year.

Note: this table refers to combined emissions of the Ministry, the judiciary and Crown witnesses.

**Table 11: Emissions by category**

Category	Emissions sources	Emissions (tCO <sub>2</sub> -e)		
		2020/21	2021/22	2022/23
Category 1	<b>Direct emissions:</b> <ul style="list-style-type: none"> <li>· Natural Gas</li> <li>· LPG</li> <li>· Mobile combustion – Petrol &amp; Diesel</li> <li>· Stationary combustion – Diesel</li> <li>· Refrigerants leakage</li> </ul>	1,642	2,340	2,516
Category 2	<b>Indirect emissions from imported energy:</b> <ul style="list-style-type: none"> <li>· Electricity</li> </ul>	3,943	3,972	3,979
Category 3	<b>Indirect emissions from transportation:</b> <ul style="list-style-type: none"> <li>· Air travel</li> <li>· Freight</li> <li>· Rental cars</li> <li>· Taxis</li> <li>· Public transport</li> <li>· Accommodation</li> <li>· Working from home</li> </ul>	3,889	1,787	3,424
Category 4	<b>Indirect emissions from products used by organisation:</b> <ul style="list-style-type: none"> <li>· Waste to landfill</li> <li>· Electricity transmission &amp; distribution losses</li> <li>· Natural gas transmission &amp; distribution losses</li> <li>· Paper use</li> <li>· Wastewater treatment</li> </ul>	573	526	695
Category 5	<b>Indirect emissions associated with the use of products from the organisation:</b> None measured	0	0	0
Category 6	<b>Indirect emissions from other sources:</b> None measured	0	0	0
	<b>Total gross emissions</b>	10,047	8,625	10,615
	<b>Change in gross emissions from previous year</b>		-14.16%	23.07%
	<b>Change in gross emissions since base year</b>		-14.16%	5.64%

## Restatement of historical emissions

This year, we have focused on improving overall data accuracy. This process enabled us to identify incorrect assumptions previously used for several emissions sources in our historic emissions data. These data improvements resulted in a better understanding of our emissions and will enable us to focus our efforts on achieving reductions. We have recalculated our emissions for both 2020/21 and 2021/22, as shown in Figure 8. All recalculated emissions sources and our overall emissions totals have been verified by Toitū as part of our 2022/23 carbon emissions audit.

Note: judicial emissions were previously included in the Ministry's emissions totals. The restated emissions below include the judiciary and Crown witnesses, to keep organisational boundaries comparable.

### Recalculated emissions compared to previously reported emissions

(Ministry of Justice + Judiciary and Crown Witnesses)

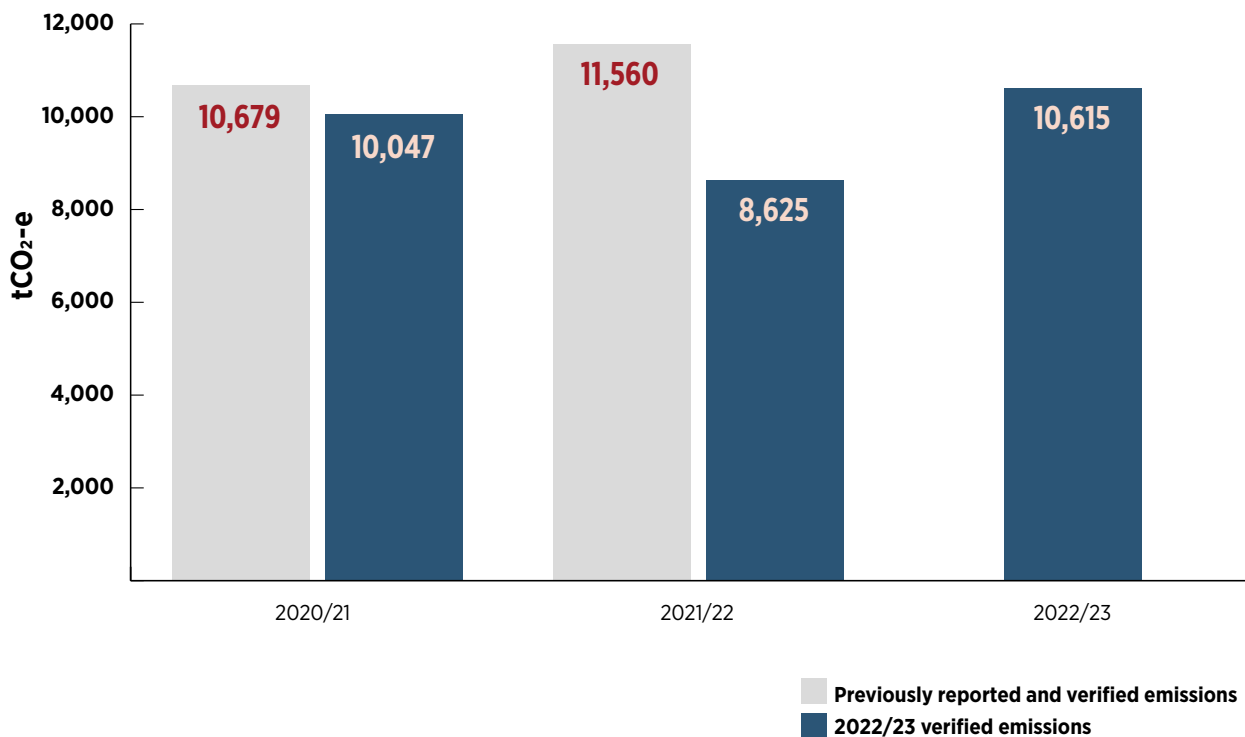


Figure 8: Recalculated emissions compared to previously stated emissions

The specific sources we recalculated are detailed in Table 12 below, along with the justification for recalculating.

Table 12: Recalculated emissions sources

Recalculated emissions sources (including Judiciary and Crown Witnesses)							
Emissions source	2020/21			2021/22			Reason for recalculation
	Past value (tCO <sub>2</sub> -e)	New value (tCO <sub>2</sub> -e)	Change (%)	Past value (tCO <sub>2</sub> -e)	New value (tCO <sub>2</sub> -e)	Change (+/- %)	
Accommodation (both international & domestic)	78	162	+108%	94	95	+1%	<b>Previous figures:</b> Supplier data contained gaps and there was an inconsistent analysis approach. <b>Recalculated figures:</b> Both accommodation and air travel emissions were recalculated to ensure consistency across all years. Aircraft-specific emissions factors were used to recalculate 2021/22 domestic air travel.
Air travel (both international & domestic)	1,737	1,892	+9%	1,854	584	-69%	
Waste to landfill	2,314	106	-95%	2,458	106	-96%	<b>Previous figures:</b> We had significantly overestimated waste to landfill using generalised assumptions. <b>Recalculated figures:</b> Comprehensive waste audits were conducted by a third party at four sites of varying sizes to generate accurate waste data which we used to develop a proxy applied to all sites.
Water supply and wastewater treatment	227	7	-97%	234	7	-97%	<b>Previous figures:</b> We had overestimated water use through broad assumptions. <b>Recalculated figures:</b> Financial data was used as a proxy for consumption, resulting in improved accuracy.
Freight	425	304	-28%	441	304	-31%	<b>Previous figures:</b> Air freight was previously overestimated. <b>Recalculated figures:</b> Supplier data was analysed at a more detailed level.
Working from home (WFH)	33	79	+139%	22	79	+259%	<b>Previous figures:</b> We had underestimated how many staff work from home. <b>Recalculated figures:</b> Swipe card data from our National Office was obtained to generate accurate office occupancy and WFH levels.

