TOITU | carbon

Help and advice to support your use of Toitū carbon assess

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Introduction

Small and medium businesses make up 97% of New Zealand businesses and account for approximately 30% of our country's carbon emissions. These businesses form an essential part of New Zealand's complex supply and value chain systems.

Together we are transitioning to a low carbon economy and that transition starts with understanding your current carbon footprint.

Toitū carbon assess makes the science accessible. This simple online tool translates standard business information into your carbon footprint. Discover which parts of your operations have the highest impacts, compare results over time, share with stakeholders, and benchmark against your competitors.

Disclaimer

Toitū carbon assess provides a carbon assessment as detailed in the Methodology appendix. The assessment should not be considered to be a complete carbon inventory but rather an assessment of key carbon-intense operations to educate organisations on their carbon impacts. The assessment depends on the data provided by the user; that data has not been verified as accurate or complete. Any claims made by users are at the user's discretion and are not endorsed or verified by Toitū Envirocare. For a full, verified carbon inventory, please <u>contact</u> Toitū for the most appropriate solution.

Availability

This guide is always available via the <u>Help link</u> in the footer of *Toitū carbon assess*. You may wish to download or print a copy for quick reference. (URL: <u>carbonassess.toitu.co.nz/documents/help.pdf</u>)

The Terms and Conditions for *Toitū carbon assess* are always available online at the following address: <u>carbonassess.toitu.co.nz/documents/termsandconditions.pdf</u>

Toitū Envirocare is committed to making carbon action easy.

We welcome your feedback to improve **Toitū carbon assess** to suit your needs. Click here to answer a short survey: www.surveymonkey.com/r/JKGY3SJ

Quick links

Jump quickly to the information you need with these buttons. Note that <u>the video tutorials are hosted</u> <u>on YouTube</u>; all other links are within this Guide. See the Contents on the next page for more specific navigation.



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Quick Guide

You can approach carbon just like financial information: you measure and report on the inputs and outputs for a specific annual period, working to manage the bottom line.

Video quick guide: learn how to create your first assessment and report here: <u>youtu.be/RqouW9hhpZk</u>

Assess

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1. Click Start Assessment from the dashboard

2. Set the annual period you want to use (ie, April 2019 to March 2020)

- This should be your financial year
- Start with the most recent complete financial year (learn why here: Reporting year)
- 3. Gather your activity data for that year

These areas are the biggest producers of carbon for most small to medium organisations.

- Gross revenue for the financial year
- Electricity used
- Fuel used (including petrol, diesel, LPG, distributed natural gas and coal)
- Travel completed (you'll need flight and accommodation records)
- Waste sent to landfill (unless you don't have a disposal contract)
- Freight (if you've spent over \$6,000 on freight during the year)

You'll need records of all the purchases or activity for these categories during that entire financial year. That data may be found in:

- Your financial accounting system, such as Xero
- Invoices, credit card statements and receipts related to electricity, fuel, travel
- Fuel card reports
- Travel provider reports
- Provider apps (such as from your travel, fuel or electricity providers)
- Contracts and invoices from your waste and freight providers
- 4. Enter your gross revenue for the financial year and click Next
- 5. Work through each of the activity categories
- Add an entry for each record you have using the instructions provided. If you get stuck, check the detailed guidance below (Entering activity data).
- Click Add entry to save each entry
- If you haven't done anything in that category (ie, no travel for the entire year), add a single entry totalling 0
- When done with a category click Next
- After you've completed electricity, fuel, travel, waste and freight, you're done
- 6. Once you've added all entries for that entire year, Publish the report.

Report



After you have published an assessment, you can print a PDF report showing your results. Simply choose the published period using the buttons at the top of your dashboard and click Download.

Share



Securely share your results within the tool. Simply click Share data from the dashboard, enter the account number provided by your stakeholder, and click Share data once more to confirm.

Read on for detailed guidance on the use of Toitū carbon assess.



Toitū carbon assess will help you assess, report, and share your organisation's carbon footprint.

- 1. **Assess**: Complete simple online forms to assess your carbon footprint from fuel, electricity, travel, waste, and freight. You'll need standard operational information to complete the forms. You can save up to five years of assessments at a time.
- Report: Once you have a full year's worth of data, you can generate a custom executive summary report to visualise your impacts. The PDF report will benchmark your work against your previous year's results as well as against averages from other Toitū carbon assess customers. This footprint will also help you identify where you could start to reduce impacts and save money.
- 3. **Share**: Once you have at least one report published you can start reporting to stakeholders. Securely share your carbon footprint within the tool to chosen stakeholders in a few clicks or download a PDF to share offline.

1. Understanding carbon

Assessing your greenhouse gas emissions, or carbon footprint, helps you to understand and strategically manage those emissions.

Why should I assess carbon?

The everyday activities of businesses, communities and individuals create greenhouse gas emissions, typically referred to as carbon. The problem is that emissions accumulate in the atmosphere and contribute to climate change. The first step to taking impactful climate action is to understand how much carbon your operations generate.

How do I assess carbon?

We assess carbon by gathering data about actions taken or goods and services used. You need information about your activities (such as the amount of petrol used or flights taken) within a specified period of time.

Software converts this activity data into a carbon footprint; carbon calculations are essentially equations multiplying your activities by emissions factors. *Toitū carbon assess* is powered by our Toitū emanage emissions calculation software; see Methodology for our methodology.

Toitū carbon assess will ask about your actions in the five most carbon-significant operational areas. You'll need data from easily accessible places such as an invoice or receipt. Set aside a bit of time for your first assessment to record a year's worth of data at once. Thereafter, if you record new activities on a regular basis, the time required becomes much smaller.

Think of carbon just like financial information: you measure and report on the inputs and outputs for a specific annual period, working to manage the bottom line.

Carbon measurement units

While your footprint is commonly referred to as carbon or carbon dioxide, the measurements actually include up to seven greenhouse gases, depending on what is produced by the activity. For example, burning petrol in a car engine produces mostly carbon dioxide but also some methane and nitrous oxide, both of which have higher climate impacts than carbon dioxide. The three gases are converted into the equivalent of carbon dioxide for the final calculation.

Toitū carbon assess automatically converts all applicable greenhouse gases into the equivalent of carbon dioxide, so your results will appear as kilograms of carbon dioxide equivalents (kgCO₂e).

Once you've assessed your footprint in kilograms, you can divide it by revenue to understand the *carbon intensity* of your operations. Once your data and revenue details have been finalised in the tool, your results will display as kilograms of carbon per one thousand dollars of revenue (kgCO₂e/\$1k).

Carbon intensity is a fair and comparable way to benchmark your carbon assessment against previous years and Toitū carbon assess customer averages.

What does carbon intensity look like? In year one, let's say your business emits 10,000 kg of carbon and generates \$500,000 in revenue. Then in the following year it emits 15,000 kg of carbon and \$750,000 in revenue. In both cases the carbon intensity is 20 kgCO₂e per \$1k. This means that while your absolute carbon increased, you improved efficiency to hold the intensity steady.

While working on an assessment you will be able to see your carbon in kilograms (kgCO₂e). Once published, your *Toitū carbon assess* report will only show carbon intensity (kgCO₂e/\$1k). Any data shared with others will only show carbon intensity, keeping your financial details confidential.

What do I need to assess?

Toitū carbon assess looks at the five most carbon-significant operational areas: electricity, fuel, business travel, waste sent to landfill, and freight. These areas are the biggest producers of carbon for most organisations, and we focus on the inputs with the most accessible data (see Methodology_for more information on the activities chosen and how we assess them).

For details on how to assess each area, jump to Entering activity data below.

Electricity produces emissions when generated through non-renewable sources, such as burning coal or diesel. Fortunately, most of New Zealand's electricity comes from renewable sources but the percentage of renewables can fluctuate, especially as demand increases.



Fuel is an obvious producer of carbon emissions – most of our current fuel types directly burn forms of carbon. We'll look specifically at the use of petrol, diesel, LPG, distributed natural gas and coal to assess your fuel carbon. This will include any travel in company vehicles or reimbursed staff vehicle use.



Travel is a significant contributor to carbon emissions, though the amount you travel depends on your sector and operations. We will assess carbon from air travel and accommodation. *Toitū carbon assess* does not currently consider travel via trains, buses, taxis, or ferries, as the emissions are comparatively small for many organisations.



Waste sent to landfill produces emissions when organic materials break down. Due to the highly contained nature of modern landfills, these items don't rot in the same way they would if composted, instead producing methane, which impacts our climate significantly. *Toitū carbon assess* does not currently consider recycling or composting, but those options can reduce the amount landfilled and therefore your result.



Freight can produce a lot of carbon emissions for some organisations, especially those creating or distributing products. For this assessment you're responsible for what you ship that weighs 2 kilograms or more. However, if the annual freight bill is less than \$6000 a year, the corresponding carbon is likely not a significant portion of your footprint and you can choose to skip it.

Assess carbon



There is a simple online form for each of the five areas. We'll guide you throughout, and anytime you need a bit more help, just refer to the appropriate section of this document.

Each area is measured in different ways, and the form will prompt you on the data you need, such as the number of nights in a hotel, or the kilowatt hours (kWh) found on electricity invoices.

Toitū carbon assess can work with the information you have. In some cases, you can choose how to measure an area based on the data you can access, such as choosing either litres or dollars for petrol use. Whether you have a single report with total litres of petrol purchased for the year or a stack of petrol receipts that just show you the dollars spent, the assessment can translate that information into carbon.

2. Top tips when using the tool

Align with your financial year

We recommend you

- use *the* same period as for financial reporting and
- start with your most recent complete financial year.

This way you can measure a complete years' worth of data and publish your first report.

Complete a year to start

To get the most out of *Toitū carbon assess*, we recommend you work through an initial year's assessment all at once, navigating through each area and saving as you go.

This allows you to start sharing data and gives you a baseline to work on managing emissions and associated costs.

Start on your computer

For your first assessment, using the larger monitor of a computer will help you keep track of all the inputs. If you have two screens, have the assessment on one monitor and your records and this guide on the other.

For the optimal experience, we recommend using Google Chrome as your browser and setting your screen resolution to 1920 x 1080.

Use the notes feature

Throughout, you can add notes to the data entered. This is a useful way to remind yourself or your team where the information came from (ie, March gas bill). These notes help you remember where to look for the information next time or if you need to go back to the source, as well as keeping track of which entries you have added.

Check dates carefully

You'll be assessing carbon one year at a time. Remember to include all activities that happened in the year. It's equally important to not include any activities from a prior or later year – if applicable, add those entries to the appropriate period within *Toitū carbon assess* instead.

Report in real time via your mobile

After you've got a full year completed, we recommend entering new data as it comes to hand, such as each month when you receive each new electricity invoice. This can easily be done on a mobile device, so consider bookmarking the site on your preferred device.

3. Create your account

Account

Ready to understand and share your carbon impacts? Start by clicking the Join button at the top of the page (<u>carbonassess.toitu.co.nz</u>).

Click through to create your account with your name, email address and password. We recommend using:

- *the* first *and* last name of the primary user of the tool;
- the email address of the primary user of the tool;
- a unique password that is a minimum of 8 characters, includes both upper- and lower-case letters, at least one special character and at least one number.

You can change details in the future – see Changing account information below.

Be sure to carefully read through the <u>Terms and Conditions</u>, including the section on data and privacy. Once you've read through, tick the box and continue. You can access the Terms and Conditions any time via the link in the footer.

Organisational details

Tell us about your organisation so *Toitū carbon assess* can accurately compare your carbon results within your sector.

"Enter your legal organisation name, select the most appropriate industry from the drop-down menu followed by the sector. This will help us benchmark your work against similar organisations. Finally, let us know how long your organisation has been operating.

If you ever need to change these details in the future, see <u>Changing account information</u> below for instructions.

4. Dashboard

The *Toitū carbon assess* dashboard provides a snapshot of any carbon assessed so far under the Carbon data overview (see Figure 1 below).

Navigate between annual assessments using the buttons along the top once you have more data. You can click into any of the areas from the icons on the dashboard or use the Get Started or Continue button at the top.

Further down the page is the Data Sharing dashboard, where you can see at a glance the enterprises that you have enabled sharing with. This feature will only share published reports, not work in progress.

Navigate back to the dashboard anytime by clicking the Toitū carbon assess banner in the header.

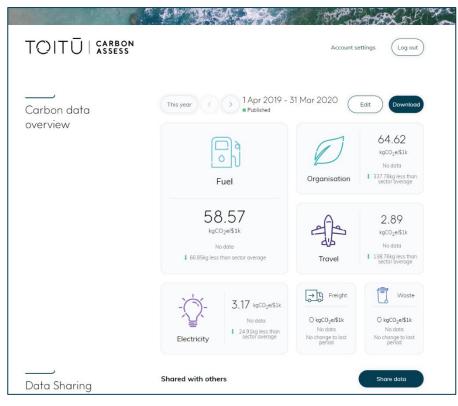


Figure 1: Example dashboard with one year published

5. Ready to begin

First, review the <u>Top tips when using the tool</u> above. You may wish to also watch the short video guide to creating your first assessment here: <u>youtu.be/RqouW9hhpZk</u>

When you are ready to assess your carbon, take a moment to ensure you have ready access to any of these items that apply to your organisation. You'll be assessing all activities during a specific year, so gather the full list that applies for that period.

It's important to carefully draw a boundary around your information by date so you include all data for that year, but also you don't include any activities that fall outside that specific year.

- Invoices, credit card statements and receipts related to electricity, fuel, travel
- Your financial accounting system, such as Xero
- Fuel card reports
- Travel provider reports
- Provider apps (such as from your travel, fuel or electricity providers)
- Contracts and invoices from your waste and freight providers
- Final gross revenue total for the year

Once you have the materials ready, click the Start Assessment button to begin.

Note: once you have created your first assessment, first navigate to the period you would like to assess next using the arrows along the top of the dashboard, then click Continue.

Reporting year

Just like with finances, a carbon footprint is typically reported for a year at a time.

To start your assessment, you'll need to set the annual period you want to use (ie, April to March).



This period will apply to all assessments going forward and cannot be changed. Please choose carefully when setting your first period. We strongly recommend you align with your financial period as the default and start with a completed financial year.

Remember to check the dates on your activities carefully before you add entries – they should fall within that specific year. If not, save them to add to a different period instead.

When you are ready, select the month and year for the first annual period you would like to assess. Click Get Started to continue.

Gross revenue

Toitū carbon assess will next ask for your gross revenue (in New Zealand Dollars) for that annual period. Gross revenue is the sum of all money generated by your business before any deductions (such as expenses).

Remember, the fair and secure way to share your carbon impacts with stakeholders is using carbon intensity, or carbon per revenue (kgCO₂e/\$1k). Recording your gross revenue for each year enables the assessment to calculate that intensity.

Your *Toitū carbon assess* report will never show your revenue or total carbon, only the carbon intensity (kgCO₂e/\$1k) so your financial information remains secure and confidential.

Please enter your organisation's gross revenue for the applicable period and click Next.

6. Entering activity data

We recommend walking through the full assessment one area at a time, adding entries as you go. See Figure 2 below for an example of the fuel activity area. Give yourself a bit of time for your initial assessment to find the data.

Be sure to use the "Add Entry" button to save changes as you go. You can navigate between areas using the Previous and Next buttons. If you need to leave at any time, select "Quit Assessment" once

you've saved your latest entry and come back to it when you can. Alternatively, jump into a specific area via the tile on the dashboard (see <u>Figure 1</u> above). Add entries for the area, and then click "Done" at the bottom of the screen to jump back to the dashboard.

Remember to use the Notes feature to remind yourself where you found the data (ie, March electricity bill) to help remind you where to find it next time or in case you want to go back to the source.

For each area, once you've saved at least one entry, a running total of carbon (in kgCO₂e) will appear at the top of the screen. The 'Add Entry' button will briefly become green and say "Entry added" when you've successfully added a new entry. Saved entries are captured below the Add Entry box as individual rows.

If you need to delete a saved entry, use the delete icon (see right) next to the entry (you'll be prompted to confirm the deletion in case you select it accidentally).

If your organisation hasn't had any activity in one of the areas, please add an entry totalling zero to complete your report before you can publish. This will help you track the complete picture and ensure accurate comparisons to previous years and against your sector.

TOITU				Account settings	Log out
Assessment Fuel	Organisation	Electricity	Fuel	Travel Waste	Freight $\phantom{aaaaaaaaaaaaaaaaaaaaaaaaaaaaaaaaaaa$
1 Apr 2020 - 31 Mar 2021	It's easy to see v types burn form	l related carbon why fuel is a big ns of carbon. On	producer of carbor ice you assess how	CO2e organisation so far this yea e emissions – most of our c much you use, you can the a co-benefit of reducing fu	urrent fuel en look for
	Add a fuel entr Select fuel type Petrol Diesel LPG Natural Gas Coal Select fuel type	y	s will calculate the et the kilowatt ho ilograms (kg) pure	either the litres used or th e most accurate result. Fo urs (kWh) used from your chased. Before you can pu t any types not used.	r invoice. For
	Notes (optional) Enter notes Add entry				0/200
	Fuel entries Date 18 Oct 2020	Type petrol	Amount \$100	Notes Rental	Θ
	18 Oct	Type coal	Amount 250 kgs	Notes Boiler	Θ
	Quit assessment				Done

Figure 2: Example fuel activity working area

Add an electricity entry

To assess electricity, you'll need to gather your electricity invoices to find the amount used in kilowatt hours (kWh). Make sure you find all the invoices that cover the period (so if you are invoiced monthly, you'll need all twelve). This information may also be provided in an app from your power company. You may also be able to ask your power company for the total kilowatt hours used for the period and enter the total as a single entry. Just add a note reminding you where you sourced the data and which period it covers to help you remember for next time.

- 1. Enter the total in the box
- 2. Optionally make a note of which invoice it refers to (ie, "18 October Meridian invoice" or "March power bill")
- 3. Click Add entry

If you have not used any electricity for the annual period, please enter an entry with a total of 0 before you can publish.

Add a fuel entry

ام م ام م You'll need to consider petrol, diesel, LPG, distributed natural gas and coal.

Carbon from fuel can be assessed in a range of ways depending on the data you have available. Gather all data about those fuels; consider if you have receipts, fuel apps, fuel card reports, credit card bills, your accounting system (ie, Xero), and invoices from suppliers. Your financial accounts may provide a good sense check of whether you've captured all the relevant entries.

For future periods, we encourage you to add a fuel entry each time you purchase fuel or during a monthly reconciliation to reduce the admin time and see a running tally of your carbon bottom line.

Note: If you have not used fuel of any type for the annual period, please enter an entry with a total of 0 (any type) before you can publish.

Petrol and Diesel

To assess petrol or diesel you need either the number of litres or the dollars spent. If you have both totals, using litres will calculate the most accurate result.

Fuel cards or petrol station receipts are a great source for litres. Receipts, credit card bills and your account system may provide dollars spent.

- 4. Select the fuel type from the drop down (petrol or diesel)
- 5. Select the measurement unit depending on which you have (L or \$)
- 6. Enter the total in the box
- 7. Optionally make a note (ie, "March fuel card report" or "Paul's Z receipt 15 October")
- 8. Click Add entry

LPG

We can assess LPG using Litres, kilowatt hours (kWh), kilograms (kg) or dollars spent. For LPG look at your invoices for either the litres used or the dollars spent. If you have data available in litres, kilowatt hours or kilograms, use these instead of dollars for a more accurate result.

You may have LPG information on fuel card reports, supplier invoices or receipts. Look at your credit card bills or accounting system for dollar spent if you can't find the information elsewhere.

- 1. Select the fuel type from the drop down (LPG)
- 2. Select the measurement unit depending on which you have (L, kWh, kg, \$)
- 3. Enter the total in the box
- 4. Optionally make a note (ie, "March fuel card report" or "Paul's credit card October")
- 5. Click Add entry

Distributed Natural Gas

To assess distributed natural gas, you need to find the kilowatt hours (kWh) used; this should typically be on your invoice.

- 1. Select the fuel type from the drop down (Natural Gas)
- 2. Select the measurement unit depending on which you have (kWh)
- 3. Enter the total in the box
- 4. Optionally make a note (ie, "March gas bill")
- 5. Click Add entry

Coal

To assess coal you will need to find the kilograms (kg) purchased. Check your invoices for the volume.

- 1. Select the fuel type from the drop down (Coal)
- 2. Select the measurement unit depending on which you have (kg)
- 3. Enter the total in the box
- 4. Optionally make a note (ie, "March coal delivery")
- 5. Click Add entry

Toitū carbon assess Guide ©Enviro-Ma

Once you have added all your fuel entries, scroll down to the bottom of the page and click Next. Remember, if you haven't used any fuel all year, please add a single entry totalling zero, and then click Next.

Add a travel entry



Toitū carbon assess will account for flights and accommodation as part of your travel footprint. You'll need flight and accommodation records – ask your travel provider for a report or review your receipts and credit card bills.

Note: If you have not had any air travel or accommodation for the annual period, please enter an entry with a total of 0 (either type) before you can publish.

Air travel

For air travel, you'll need the kilograms of carbon (kg CO_2e) for each trip. Some travel agents or providers will give you this information in a report.

If you aren't provided with the carbon for each flight, you can calculate this quickly using the Toitū travel calculator. Learn how here: Flight carbon calculations.

Once you have the kilograms of carbon for each trip:

- 1. Select the travel type from the drop down (air travel)
- 2. Enter the carbon amount for that trip
- 3. Optionally make a note (ie, "October trip Jane Auckland to Dunedin")
- 4. Click Add entry

Accommodation

To assess accommodation, you simply need to know the number of nights stayed per person (visitor nights or v.ngt). What do visitor nights look like? If one person stays three nights in a hotel, this would be 3 nights. If two people each stay two nights in a hotel, this would be 4 nights.

Look over your travel report, loyalty card records, trip itineraries, receipts, and credit card bills to get the list of nights away on business. Then for each trip:

- 1. Select the travel type from the drop down (air travel)
- 2. Enter the visitor nights for that trip
- 3. Optionally make a note (ie, "October trip Jane Auckland to Dunedin")
- 4. Click Add entry

Before you publish your assessment, please enter zero for any type not used in that period.

Once you have added all your travel entries, scroll down to the bottom of the page and click Next. Remember, if you haven't travelled all year, please add a single entry totalling zero, and then click Next.

Add a waste to landfill entry



To start, we need to know if you have a waste disposal contract or not. Simply select yes or no:

Yes: If your organisation does have a waste disposal contract, you will need to assess the carbon produced by sending waste to a landfill.

No: If you don't have a waste disposal contract, you likely don't produce enough waste to be significant to your assessment. Where your landlord includes waste disposal as part of your lease, for example, then your landlord would account for your waste contribution as part of their footprint. This would cover many office-based organisations, who would measure waste by a small basket, not by the cubic metre or skip-load. Selecting No will skip the waste input area of the assessment and allow you to publish the report without any waste entries.

To add Waste entries, you will need to find the amount sent to landfill. Depending on the information your waste contractor provides, we have a few options.

Does your waste management contract or invoice include either the total cubic metres (m³) or kilograms (kg) of waste sent to landfill for a specified period? If so, simply:

- 1. Select the measurement unit from the drop down (m3 or kg)
- 2. Enter the amount in the box
- 3. Optionally make a note (ie, "October waste to landfill from invoice")
- 4. Click Add entry

Do you only know the number of bins or skips sent to landfill?

Assume the bag, bin or skip is full, and add one entry for each sent to landfill based on the steps below.

We recommend talking to your contractor in the first instance to see if you can get more specific data going forward, which will help you assess carbon and may help you spot cost savings opportunities.

We encourage you to weigh a rubbish bag or bin or ask your waste collection supplier to weigh your skip at least once a year to obtain more accurate data for your operations. Then, if you have kilograms for some or all of your waste for the year, you can use those figures as an average estimate for any missing months. Enter that average as an entry for any periods needed and include a note that it is an average.

For bags or bins of rubbish, see the list of equivalencies in appendix 3 to estimate the kilograms of rubbish.

- 1. Work out the approximate kilograms of the bag or bin you use from the <u>Waste activity</u> <u>calculations appendix</u>.
- 2. Select kg as the measurement unit from the drop down
- 3. Enter the amount in the box
- 4. Optionally make a note (ie, "Estimated October waste to landfill from 3 bins" or "Estimated October waste to landfill from 4 rubbish bags"))
- 5. Click Add entry

For skips, review your contract for the size of skip available, and use the cubic metres in the absence of kilograms.

- 6. Work out the volume of the skip you have in m³ from your contract.
- 7. Select m3 as the measurement unit from the drop down
- 8. Enter the amount in the box
- 9. Optionally make a note (ie, "Estimated October waste to landfill from 3 bins")
- 10. Click Add entry

Add a freight entry



To start, we need to know if you spend more than \$6000 on freight annually. Simply select yes or no:

Yes: If you spend \$6000 or more annually on freight, you will need to assess the resulting carbon.

No: The amount of carbon produced by shipping this freight is estimated to be comparatively insignificant to your assessment. Selecting No will skip the freight input area of the assessment and allow you to publish the report without any freight entries.

To add Freight entries, you need to know the volume and distance freight was sent to measure it in tonne-kilometres (tkm). Depending on the information available from your freight provider we have a few options.

Does your freight provider provide a report or invoice with total tonne-kilometres? If so, simply:

- 1. Enter the total tkm in the box
- 2. Optionally make a note (ie, "March freight total" or "October freight from Auckland depot")
- 3. Click Add entry

Do you have the information about the tonnes and the destinations, but not in tonne-kilometres?

1. Calculate the tonne-kilometres for a single item using the advice in <u>Freight activity calculations</u> appendix

- 2. Enter the total tkm for an item in the box
- 3. Optionally make a note (ie, "Shipment from Auckland on 15 October")
- 4. Click Add entry

Do you only know the amount spent on freight, not details about volume and/or destinations?

- 1. Estimate the equivalent tonne-kilometres based on dollar spend using the advice in <u>Freight</u> <u>activity calculations appendix</u>
- 2. Enter the total tkm in the box
- 3. Optionally make a note (ie, "Estimated March freight based on \$ spend")
- 4. Click Add entry

Report your carbon assessment



Toitū carbon assess generates a custom report to visualise your impacts, including benchmarks against the previous year's results and Toitū carbon assess customer averages.

This footprint will also help you identify where you could start to reduce impacts and save money.

Use this PDF report to share your assessment with staff, stakeholders, suppliers and more.

7. Create first report

Once you have added your gross revenue and activity data for the full year in *Toitū carbon assess* you can publish your first report.

Note: once you publish, your carbon results will only display as carbon intensity, not overall kilograms of carbon. You may wish to make a note of your organisational total before publishing for future reference or in case you decide to purchase carbon credits (see below: <u>Purchase offsets</u>).

Publish

If you have worked through each section in succession, clicking Next at the bottom of the screen, you'll be given a Done button after Freight. Alternatively, from the dashboard you can click Publish at the top of the overview if ready. After publishing you'll receive a confirmation pop up window, and the dashboard will show a "Published" status under the period along the top of the overview (see Figure 3 below as an example).

Don't worry, you can still go back and update your report at any time if you need to. Click 'Edit' from the dashboard. This will unpublish your results so you can or edit any entries. When ready, just publish the assessment once more.

Once at least one report is published, you can start sharing your data within the tool or using your downloadable report. Jump to <u>Share your carbon assessment</u> below to get started.

Dashboard

Your Carbon data overview dashboard will change once published (see Figure 3 below). The carbon totals are now displayed as carbon intensity against revenue (kgCO₂e/\$1k). There are also two benchmarks – once comparing your results against previous years and one against the Toitū carbon assess customer averages. The buttons at the top of the overview now let your either Edit or Download the report.

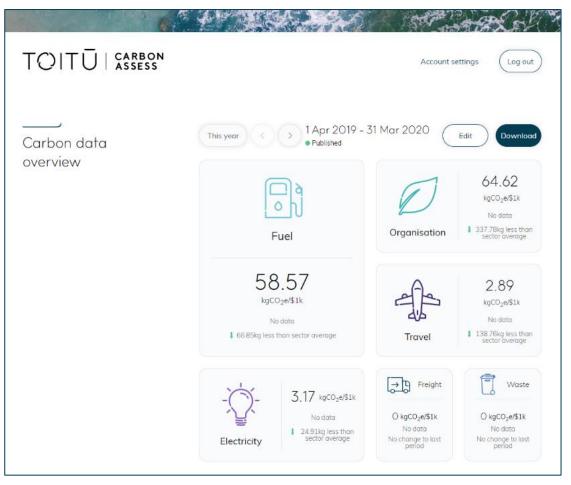


Figure 3: Dashboard for a published assessment

Benchmarks

You'll need at least two years of data to compare your own results, but the sector benchmark will appear right away. This is a great way to see how you are doing and if you might want to target certain areas to try and reduce your carbon. Keep in mind that reducing carbon often correlates to cost savings, such as using less energy or fuel.

Note: the sector benchmarks are based on Toitū carbon assess customer averages; these will be increasingly specialised as more organisations report through *Toitū carbon assess*. See the <u>Methodology appendix</u> for further details.

Download Report

Click the Download button to produce a PDF report of your results. The report includes your carbon intensity for your overall organisation and per activity area, as well as benchmarks.

Assessing and understanding your carbon is a great step to reduce impacts and identify efficiency opportunities. We recommend sharing the results with your staff to get the conversation started. Add a copy to the tearoom or share at your next team meeting.

This PDF report can be shared with your stakeholders, included in tenders and procurement packs, posted on your website, or anywhere you want to highlight your work. When making any public claims about your carbon assessment, be sure to check it against the <u>Commerce Commission Environmental</u> <u>guidelines</u>. We have provided a few ideas to get you started below (<u>Making claims</u>).

To share the report within *Toitū carbon assess*, see <u>Share your carbon assessment</u> below.

8. Create subsequent reports

Once you have completed additional periods in *Toitū carbon assess*, you can publish subsequent reports.

Navigate between periods using the arrows along the top of the Carbon data overview on your dashboard. The periods will show either 'In progress' or 'Published' as the status below the dates to help you keep track (see (see Figure 3 above to see a 'Published' example). Use 'This year' to jump to the current live period based on today's date. The dashboard tiles will refresh as you change years to show that period's results and benchmarks. You can save up to five assessments at a time.

Depending on which historical period you've started with, you may be able to enter and publish those assessments right away. If you started with the most recent complete year, then enter any data to catch up to today, continue to add new entries as they become available, and return to this guide at the end of the period with your final gross revenue figure.

When ready to publish, you can click Done after finishing freight entries or navigate to the appropriate period from the dashboard and click Publish.

Share your carbon assessment



Toitū carbon assess helps us work together to understand our shared carbon impacts.

Securely share your carbon assessments with your buyers and stakeholders directly within the tool and control who can access your carbon reports.

9. Select stakeholders

To share your carbon data with stakeholders you'll need their *Toitū carbon assess* account number. They may have shared this with you directly via email when inviting you to use the tool. If needed, contact your stakeholders to request this number.

Ready to share your results? Once you have the account number, click the 'Share data' button on the Data Sharing portion of your dashboard to get started.

Enter the account number in the box provided and click Share data. If you change your mind, click 'Maybe later' to return to the dashboard.

You'll receive a confirmation message on screen that you have offered to share your data with that organisation. Once you've enabled sharing, any buyers and other stakeholders will be listed as tiles in the Data Sharing portion of your dashboard.

10. Manage what you share

The stakeholders with whom you share your data will only see published carbon assessments measured in carbon intensity. They will not see work in progress, completed assessments put back in edit mode, or your kilograms of carbon or financial revenue.

If at any point you'd like to remove a stakeholder simply click the delete icon (see right) and click through the prompts to confirm.

Managing account details

Access your Account details at any time from the 'Account settings' button in the header. Please see the current <u>Terms and Conditions</u> for full details around and data and privacy.

11. Your account information

Account number: this number is assigned to you upon account creation. This is used for sharing. You may also need to reference it if you contact us for support.

Name: the first and last name of the primary user of the tool (entered during account creation and editable at any time). Note the name will be included on your monthly invoice along with the organisation name.

Email address: the email address of the primary user of the tool (entered during account creation and editable at any time). This is the address where you will receive invoices, support responses, account information or information on software updates.

Password: the current password for your account (hidden for security purposes). First set during account creation and editable at any time. Your password should be unique, a minimum of 8 characters, and must include both upper and lower case letters, at least one special character and at least one number.

Organisation name: the name of your organisation (entered during account creation and editable upon request). Note the organisation will be included in full on your shared report, the downloadable PDF report, and on your monthly invoice.

Industry and **Sector:** the most applicable industry and sector for your organisation (selected during account creation and editable upon request). This information is used to establish benchmarking information for your dashboard and reports.

12. Changing account information

You can edit your Name, Email and Password directly in the tool. Click through to 'Account settings' and click the 'Change' button for the applicable field and follow the prompts.

If you need to change your organisation name or sector, or to cancel your subscription, please <u>contact</u> <u>us</u>.

Manage impacts

Once you've measured your carbon footprint you can set carbon reduction targets with confidence.

13. Why manage emissions?

Making a commitment to manage and reduce greenhouse gas emissions at source is the most important aspect of carbon management. Plus, once you know your baseline you can start reducing impacts and saving money. Just like with your financial bottom line, through good carbon reporting you can actively manage costs.

Climate science is clear: in order to limit global temperature increase to well below 2°C, we have a strict budget of remaining carbon emissions allowable (<u>Learn more about the carbon budget here</u>). Globally we must have net zero emissions by 2050. The only way to get there is if we assess our impacts and work to reduce them as much as possible; other mitigation options like offsets or carbon storage will help to balance the scales but will be cost prohibitive without reduction.

Managing emissions will also help you:

- Demonstrate climate leadership
- Save resources, energy and costs
- Drive innovation
- Attract and retain staff
- Prepare for legislative requirements or supply chain requirements
- Transform your brand image
- Improve relationships with your value chain

• Contribute to local and global commitments to reduce emissions and achieve net zero by 2050

14. How do I manage emissions?

Think about what you can do to reduce, substitute or avoid emissions. Remember – quick wins and long-term projects are both important to make your fair contribution to our climate. Setting short term goals (ie, annual reduction of 3% or reduce electricity use by 10% annually) alongside long term goals (ie, net zero emissions by 2050) will help you make progress, see cost savings that can be reinvested into further reduction projects, and ensure buy-in.

Reducing emissions is a win-win for business and the environment. It brings about cost savings and, if you choose to purchase offsets, reduces the number required to balance out your current footprint.

Read more: Explore our articles on reducing emissions here.

Electricity

Assessing your carbon from electricity will help you identify opportunities to make informed decisions about this resource and may highlight opportunities to reduce use (and see cost savings).

GenLess (backed by EECA) has a wealth of information to help your improve energy efficiency.

- Turn off all equipment and appliances at the wall when not in use, as many devices in standby mode (what we think of as 'off') can still draw on power. Check the manuals for optimal operation settings to improve energy efficiency.
- Where natural lighting is available, think twice before flicking on lights and turn lights off when you leave the room. The next time you need to replace a bulb, choose an LED option to save on energy and costs over the bulb's lifetime. If possible, look into occupancy sensors for office lighting.

Fuel

Once you assess how much fuel you use, you can then look for opportunities to reduce carbon-based fuels, with a co-benefit of reducing fuel costs.

GenLess can help you target fuel use, whether it's improving efficiency or upgrading your fleet.

- Train all staff on driver efficiency and keep vehicles maintained regularly to improve efficiency.
- Combine trips where possible, or check if public transport, biking or walking can get you there
 instead.
- Consider fuel use when you upgrade any vehicles in the future; GenLess offers a total cost of ownership tool to help you make an informed choice.

Travel

Once you assess how much you travel, you can then look for opportunities to reduce trips or choose alternative forms of transportation.

GenLess has great tips on reducing the impacts of flying.

- Avoid trips if possible, relying instead on video conferencing and other tools.
- Some business travel is unavoidable. If you do need to travel, try to combine several activities into one trip to improve efficiency.

Waste

Sending waste to landfill should be the last resort, both to reduce emissions and to conserve resources.

<u>Sustainable Business Network</u> has a wealth of resources on product stewardship, whether you are looking to <u>purchase from low waste companies</u> or <u>want help managing the waste</u> from your own products.

- Conduct a waste audit to see the types of rubbish you are sending to landfill and see what you
 may be able to divert instead.
- Try to compost all organic material and recycle as much as possible. Your local council will provide the details on what and how to recycle locally.

Freight

Freight relies heavily on road transport, and therefore fuel emissions. Look into how you can reduce the load for your operations.

- Order in bulk and well in advance to improve shipping efficiency and allow for alternative transportation like sea or rail.
- Look at whether you can source items more locally
- Contact your freight provider for options custom to your needs.

15. Partners for advice

Toitū carbon assess has partnered with Energy Efficiency & Conservation Authority (EECA) and the Sustainable Business Network to support our members on reduction advice. Browse their online resources and get in touch for further support by clicking on their logos below.



www.eeca.govt.nz



16. Purchase offsets

The everyday activities of businesses, communities and individuals create carbon emissions that accumulate in the atmosphere. It is vital we all reduce our emissions, but carbon credits play a key role during the transition to a low carbon economy by balancing the scales for unavoidable emissions. Learn more about offsets and carbon credits here.

If you would like to purchase any carbon credits, you are welcome to purchase from our curated supply. Toitū has high standards for the types of credits we work with. Once you know the number you'd like to purchase, jump in our <u>Purchase Offsets tool</u>.



Figure 4: Toitū's offset purchase tool

Note: if you want to offset some or all of your *Toitū carbon assess* result, remember to look at the overall carbon number, not the intensity figure. This figure is available from your dashboard when that period is in edit mode – the Organisation tile shows your overall total carbon in kgCO₂e.

If you decide to purchase offsets, check <u>Carbon offsets and neutrality</u> below for guidance on the type of statement you can make.

17. Making claims

We encourage you to talk about your carbon assessment both internally and externally. Once your assessment is published, share the results with staff, encourage discussion of suggestions to act on the assessment, and provide regular updates. Talk to your supply chain about the work you are doing and how they can participate or help you. Feel free to share your PDF report on social media or your website.

Supporting your claims

We provide a few images that subscribers may use to support their claims. New versions will be added to the library over time to support your evolving carbon journey. Once you've published your first assessment and are ready to make claims, <u>contact us</u> for the latest image files (<u>carbonassess@toitu.co.nz</u>). The link was also sent out in your welcome email.

- Badge: a square image you can place on your website. We recommend including your report on your website or a link to *Toitū carbon assess* itself (<u>https://carbonassess.toitu.co.nz/</u>) to help substantiate your work. Where space allows, add some text about your results and your plans going forward.
- Email signature: this banner image can be added to your email signature. We suggest you create a hyperlink from the image to your report on your website or to *Toitū carbon assess* itself (<u>https://carbonassess.toitu.co.nz/</u>) to help substantiate your work.
- Social tile: a square image designed to share in your social media feeds. Use the statement below
 as a starting place for the post, consider adding your assessment report as an image as well, and
 consider including one of these <u>tags</u>: #nzbusiness #smebusiness #businesssustainability
 #supplychainsustainability #climateaction



carbon journey with TOITŪ \$\$\$555 2 0 2 0

Example claims

To get you started, here's a few statements you could adapt for your own situation and share alongside your PDF report on your website, social media, or other collateral:

"Our latest <u>Toitū carbon assessment</u> came out as # kgCO₂e/\$1k. We're working to reduce that by <name your projects ie, fuel efficiency/travelling less/diverting waste to landfill/other>."

"We're excited to started assessing and reporting on our carbon emissions using Toitū carbon assess"

"Our first carbon emissions assessment identified that we generate <NN> kg of carbon per \$1000 of gross revenue"

"We've assessed our carbon emissions using Toitū carbon assess, now we're going to start reducing them" Before publishing any claims, we recommend you review the Commerce Commission's <u>Environmental</u> claims guidelines.

Product claims

It is important to be aware that *Toitū carbon assess* is a tool to assess the footprint of your organisation's operations and does not assess the full product life cycle. While there may be some overlap, unfortunately you cannot make any claims on products, services or product packaging around the use or results of *Toitū carbon assess*. In order to make claims about measuring or offsetting the goods and services you provide, you need a verified life cycle assessment of the full product or service life cycle, and this is currently outside the scope of *Toitū carbon assess*.

If you intend to put anything on your product labels, you will need to measure and verify the full product lifecycle. If this is the next step for your carbon journey, please <u>contact us</u> to discuss the options for product verification or certification.

We still encourage goods and services providers to assess and report on carbon using *Toitū carbon assess*. You may make claims on your business collateral and stationery, social media, and the website. Please just make sure your wording is very clear about what is assessed. To get you started, here is a statement you could adapt for your collateral:

"We're starting our carbon journey by using <u>Toitū carbon assess</u> for our operational footprint. This year's results came out as # kgCO₂e/\$1k. We're working to reduce that by <name your projects ie, fuel efficiency/travelling less/diverting waste to landfill/other>."

Before publishing any claims, we recommend you review the Commerce Commission's <u>Environmental</u> claims guidelines.

Carbon offsets and neutrality

You are welcome talk about any offsets you purchase after your assessment, provided you meet guidelines. Once you've made your purchase, talk about your assessment, any work you are doing to minimise impacts, and the credits you've purchased.

To get you started, here's a statement you could adapt for your own situation and share alongside your PDF report:

"Our latest <u>Toitū carbon assessment</u> came out as # kgCO₂e/\$1k. We're working to reduce that by <<u>name your projects ie</u>, fuel efficiency/travelling less/diverting waste to landfill/other>. We have purchased # of carbon credits to help mitigate some of our climate impacts. The funds from these credit projects support <<u>biodiversity/energy</u> efficient/other> work and help out our climate while we work to reduce our emissions."

Please note that you shouldn't make a carbon neutral claim without a verified footprint and offset plan to ensure you have a complete inventory and have offset the total to achieve net zero emissions (see the Commerce Commission's <u>Environmental claims guidelines</u>). If this is the next step for your carbon journey, <u>contact us</u> about verification or certification.

Getting more help

18. Get in touch

Reach our customer service team via <u>carbonassess@toitu.co.nz</u> anytime. We can help with technical issues, changing account details, cancelling subscriptions, or any other questions and concerns you may have.

Our team offers support during standard New Zealand business hours (9-5 Monday to Friday), and commits to responding within 1 business day.



19. Methodology appendix

Toitū carbon assess methodology

Toitū carbon assess is specifically aimed at small and medium organisations who want to assess their carbon footprints but are not currently interested in formal carbon accounting. Accordingly, in developing the tool, Toitū Envirocare simplified the activity inputs required to target the most carbonintense areas of typical operations. The inputs have been designed to ask for the data that most organisations can easily access to indicate the likely carbon impacts of that activity. The calculations are based on New Zealand emissions factors, but **Toitū carbon assess** does not provide a formal calculation of all greenhouse gas emissions in line with the requirements for a verifiable inventory.

To request specific details on the methodology or factors powering *Toitū carbon assess*, please <u>contact us</u>.

Sector comparisons

The sector comparisons within the *Toitū carbon assess* dashboard and report are based on real-time averages drawn from all Toitū carbon assess customers, with the outliers removed. If 10 or more Toitū carbon assess customers are in the same Sector, then the averages will be based on the Sector. If not, then Industry is checked, and if 10 or more Toitū carbon assess customers are in the same Industry, then the averages will be based on the Industry. If not, then all Toitū carbon assess customers are used in the averages.

To request specific details, please contact us.

20.Flight carbon calculations appendix

First collect your flight records. Look over your travel report, membership programme apps or records, trip itineraries, diary, receipts or credit cards to find all flights.

For each trip, you'll need to know the departure and destination airports, if it was a return trip, and the number of travellers.

Open the <u>Toitū travel calculator</u> in a new window.

- 1. Click the 'Getting around' row to expand the options.
- 2. From the drop down menu under Air Travel, select if the flight is domestic or international. A window will pop up.
- 3. In the pop-up, enter the number of passengers and select the airports from the menu. The box indicating this is for a return flight will default to ticked; if you only flew one way, untick the box.

	=1
Ser Distance	
No. Passengers 1 🗹 With Return Flight	
From New Zealand Auckland	
To New Zealand	
Distance: 1518 pkm	
G	
Help and reduction tips	

Figure 5: Add flight pop-up window

- 4. Once you have entered the details for that flight, click the Close button to save changes. The popup window will close.
- 5. The calculator will show you the kilograms of carbon for that flight along the right side (see the green 1 in Figure 6 below).

- 6. You can add additional flights using the new drop down domestic or international item below your previously saved flight (see the green 2 in Figure 6 below).
- 7. Calculate as many flights as you have taken for that period, then pull the kilograms of carbon over to *Toitū carbon assess*.

TOITŪ BB 1393 kg CO ₂ e Travel Emissions Calculator			
Year	2020	~	
Period	Whole Year	~	
Getting around Help and reduction tips Air travel	1393	•	
Domestic flight	~	1 368 kg CO ₂ e	
AKL-CHC RET 💮	1518 pkms		
International flight	~	1025 kg CO ₂ e	
CHC-MEL RET	4823 pkms		
2 Select type to add Select type to add Pi Domestic filght International flight Select type to add	•		

Figure 6: Example flight calculations in the Toitū travel calculator

21. Waste activity calculations appendix

Information to support you in adding activity data under waste sent to landfill.

Converting bags or bins to kilograms

First determine (or estimate) the size of the bag or bin that you most often use to send waste to landfill. The below table will let you estimate the kilograms of the container when full.

Note: the figures are estimates only and may not accurately reflect your waste profile, especially if it is high density (like rubble or compacted bulk waste) or high in organic content (like pomace (fruit pulp), biosolids, or abattoir waste). We encourage you to weigh a rubbish bag or bin or ask your waste collection supplier to weigh your skip at least once a year to obtain more accurate data for your operations.

Capacity	Approximate weight when full
240 Litre wheelie bin	48 kg
140 Litre wheelie bin	27.6 kg
120 Litre wheelie bin	24 kg
80 Litre wheelie bin	18 kg
60 Litre black bag	12 kg

Table 1: Approximate weight of rubbish bags and bins

22. Freight activity calculations appendix

Information to support you in calculating your freight activity data.

Calculating freight using weight and distance

If you have the information about the tonnes and the destinations, you can easily calculate the tonnekilometres using the following equation.

tonne-kilometres = weight (in tonnes) x distance (in kilometres)

You may find it helpful to work in an excel spreadsheet to calculate as many shipments as you have, and then add the entries to the tool. See Table 2 below as an example. If you do this, you need to convert each item to tonne-kilometres separately, then add the total tonne-kilometres (e.g., the green row), rather than adding the weights and distances first and multiplying the totals (e.g., the red bottom row).

Item weight (tonnes)	Distance (km)	Tonne-Kilometres (tkm)	Equation
20	1,000	20,000	=(20x1,000)
10	5,000	50,000	=(10x5,000)
50	100	5,000	=(50x100)
		75,000 Correct total	=(20,000+50,000+5,000)
80	6,100	488,000 Incorrect total	=((20+10+50)x(1000+5000+100))

 Table 2: Example of calculation for tonne-kilometres

Calculating freight using dollars spent

If you only have the amount spent on freight, we advise you speak to your freight provider to see if you can get further details in the future. This will give you a more precise assessment, and let you manage impacts with greater accuracy.

Use one of the following options to estimate an approximate tonne-kilometre based on the amount spent on freight. Then, use this tonne-kilometre result to continue following the instructions above from step 2 (Do you only know the amount spent on freight, not details about volume and/or destinations?).

Use the following equation to develop an approximate tonne-kilometre equivalent for any dollar amount. This will help you develop an entry for each invoice. As above, this estimate is based on domestic road freight and will likely give you a higher carbon total than if you can acquire the actual tonne-kilometre information.

tonne-kilometres = \$ spend x 0.0134167

Alternatively, the following table will give you conservative estimates for freight per \$1000 spent. These estimates are based on domestic road freight and will likely give you a higher carbon total than if you can measure the tonne-kilometres.

Dollar spend on freight	Tonne-Kilometres (tkm) equivalent
6,000.00	80.50
7,000.00	93.92
8,000.00	107.33
9,000.00	120.75
10,000.00	134.17
11,000.00	147.58
12,000.00	161.00
13,000.00	174.42
14,000.00	187.83
15,000.00	201.25

Table 3: Approximate equivalent tonne-kilometres per \$1k spend