CARBON IMPACT REPORT 2024

FISHER & PAYKEL

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PUBLISHED NOVEMBER 2025

EXECUTIVE SUMMARY

PRIORITY

This Carbon Impact Report reflects our ambition to mitigate the negative impact we have on the climate.

We believe a focus on carbon emissions reductions is urgent and is required to deliver a meaningful benefit for future generations.

GOALS

Our goals are to reduce total (Scope 1, 2 and 3) carbon emissions per-appliance-sold 50% by 2030 and 90% by 2050, from our 2020 baseline.

OPPORTUNITIES

The greatest contributor to our carbon emissions and therefore greatest opportunity for reduction is the use of our sold products (Scope 3, Category 11), primarily the lifetime energy use of the appliances we sell.

STRATEGY AND ROADMAP

To pursue our goals, our Carbon Impact Strategy and Roadmap is focused on 5 main pillars:

New Products
New Company Choices
New Customer Choices
New Technologies
New Ecosystems

PROGRESS

For transparency, we report our progress toward per-appliance-sold goals and total carbon emissions on an annual basis.

In 2024, our carbon emissions per-appliance-sold reduced by 21% compared to our 2020 baseline year.

Our total carbon emissions also reduced by 13% compared to our 2020 baseline year.

INTRODUCTION

This Carbon Impact Report reflects our belief that dedicated carbon emissions reporting is essential to informed and targeted climate change action.

From our 2020 baseline year, our company goal is to reduce Scope 1, 2 and 3 carbon emissions per-appliance-sold 50% by 2030 and 90% by 2050.

Having assessed our entire value chain across Greenhouse Gas Protocol Scopes 1, 2 and 3, it is clear that addressing Scope 3 is where we have the potential to make the largest measurable impact. Energy used by our appliances includes both electricity and fuel usage, with total appliance electricity usage being the largest contributor to our Scope 3 carbon emissions.

We believe we will reduce the most carbon emissions by designing and manufacturing appliances that are significantly more energy efficient or part of home ecosystems that are powered by lower-carbon electricity.

The global net zero transition requires a shift from fossil fuels to lower-carbon energy generation. Electrification of processes that are currently reliant on fossil fuels are critical to this transition. However, as electrification significantly increases, so too will the demand for lower-carbon electricity.[1] So far, growing global electricity demand has exceeded increased lower-carbon electricity generation, which means the carbon emissions of the energy sector are still growing.[2] This highlights the importance of electricity efficiency along with storage and demand management for every home.

At Fisher & Paykel, we currently know how to reduce carbon emissions from appliances through energy efficiency gains, but not how to remove them completely.

Our improvements over time will be iterative rather than instantaneous. Progress is unlikely to be linear, but compound to deliver greater reductions over time as we develop new technologies and ecosystem services that deliver greater efficiencies through integrated energy management.

We are one company operating in different communities, cities, and countries — on one planet. We are one company in a global context of millions of companies, all focused on reducing emissions. Where we find breakthroughs, we will endeavour to share our findings with global partners, to make progress faster across our market sector. Ultimately, impact will be delivered through new relationships and collaborations that transcend the economic frameworks of industry sectors, to make change at scale possible.

This Carbon Impact Report documents our progress towards our carbon emissions goals as of 2024, the latest year for which we have complete data, benchmarked against our 2020 baseline.

We recognise that sustainability is a broad and systemic challenge, but we believe that our focused approach on reducing carbon emissions will drive faster results and address the urgency of the climate crisis.

CARBON AT A GLANCE

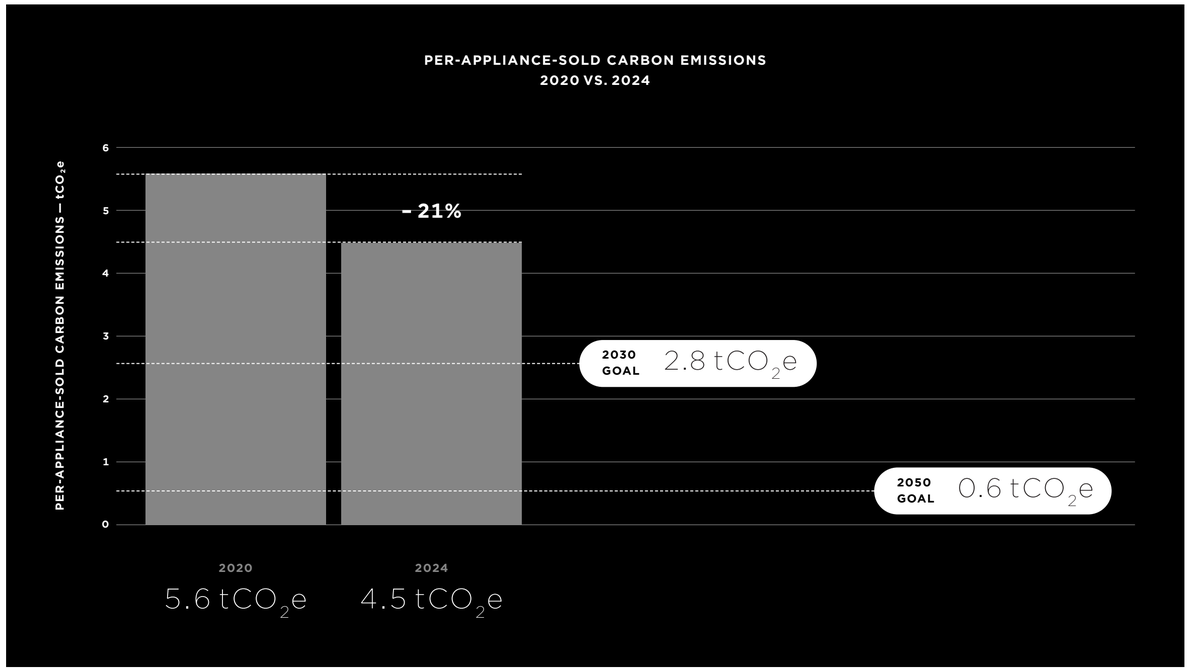
In 2024, approximately 86% of our total carbon emissions came from the use of our appliances across their lifetime. Around 66% of our total carbon emissions come from the generation and supply of electricity to power the use of our appliances.

AVERAGE CARBON EMISSIONS PER-APPLIANCE-SOLD

2020	5.6 tCO_2e	
2024	4.5 tCO_2e	**–21% VS. 2020**

TOTAL CARBON EMISSIONS

2020	7.7M tCO_2e	
2024	6.7M tCO_2e	**–13% VS. 2020**



Total emissions per-appliance-sold, calculated using GHG Protocol Scopes 1, 2 and 3.

For clarity, this report compares 2024 data with our 2020 baseline year. Full year-on-year data is reported in the appendix.

DEFINITIONS

The term ‘carbon emissions’ has become shorthand for the atmospheric greenhouse gases (GHGs) that contribute to global warming. Carbon emissions are measured in carbon dioxide equivalents (CO_2e) over a 100-year timescale. The Greenhouse Gas Protocol categorises emissions into Scopes 1, 2 and 3 — each is a mechanism for classifying the different kinds of carbon emissions a company creates.

Scope 1 — Carbon emissions from fuels and energy sources that we directly control.

Scope 2 — Indirect carbon emissions, for example, from the purchased electricity in our operations.

Scope 3 — Carbon emissions produced across our wider value chain by others, including the emissions resulting from people operating the appliances we sell.

WHY SCOPE 3 MATTERS

While many companies have made progress in Scope 1 and 2 carbon emissions reductions, we believe addressing the challenges of Scope 3 is critical to any carbon emissions reduction strategy. In 2022, a CDP survey showed that just 38% of global companies measured emissions across all scopes. However, on average, Scope 3 emissions accounted for 75% of a company’s total emissions.[3]

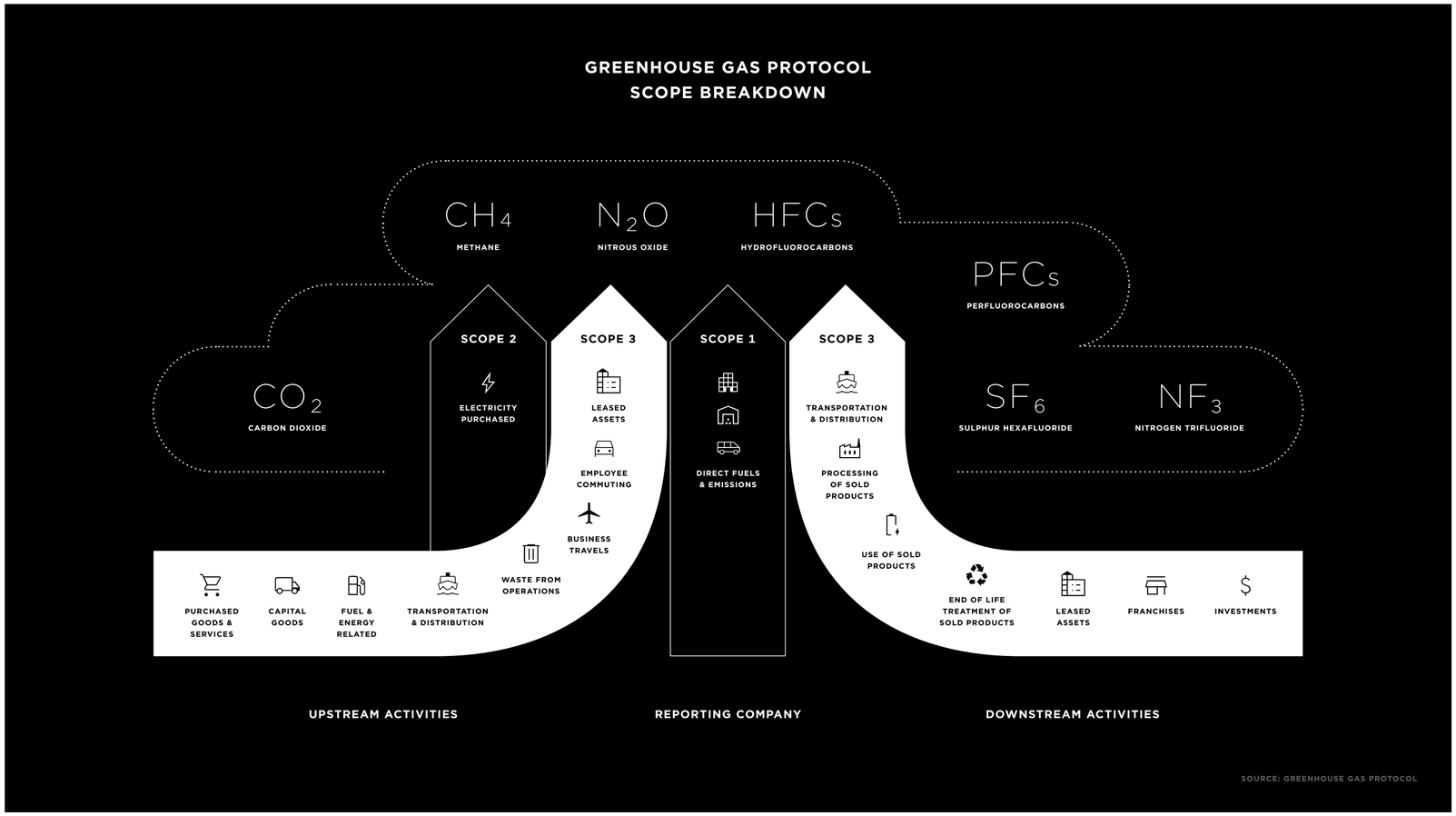
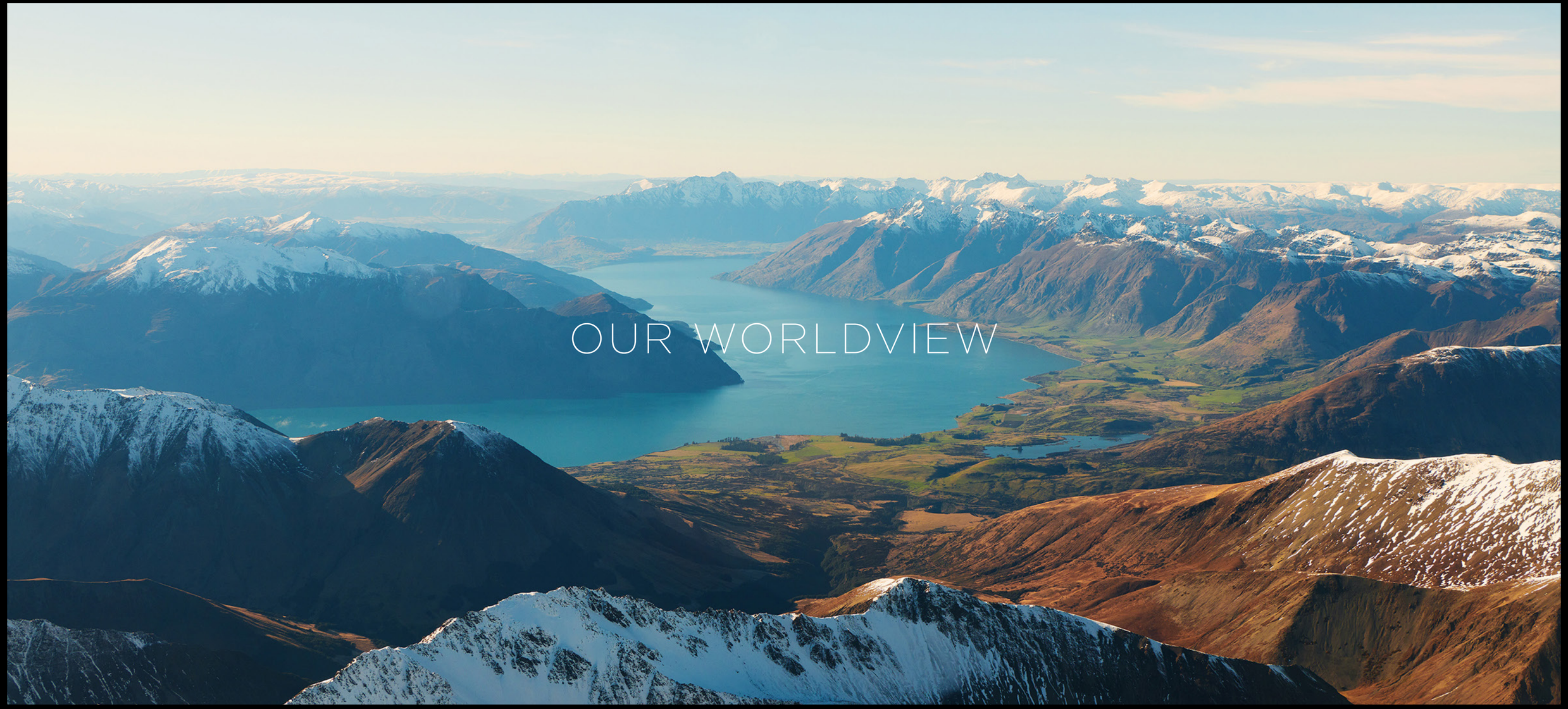


Illustration of the scopes and categories used to calculate a company’s carbon emissions inventory.



OUR WORLDVIEW

A CARBON-FIRST APPROACH

Daniel Witten-Hannah, Managing Director and CEO, and Kane Alward, VP Carbon Zero Transition and Research & Development, discuss Fisher & Paykel's focus on carbon impact.

Let's discuss carbon, which is shorthand for the greenhouse gases affecting the climate. It's now customary for companies to fold environmental, social and governance into sustainability reporting. Why is the focus of this report very specifically carbon?

DANIEL Let's start with the hard facts. Climate change is caused by human activity and there's more carbon in the atmosphere than at any other time in human history.[4] It's also occurring faster than anticipated and we're seeing the effects of that all over the world.

As the most urgent global challenge relevant to our business purpose, we believe a critical focus and organisational alignment around carbon enables us to go faster and have a greater impact over time.

KANE To avoid the worst consequences of climate change we need to collectively limit global warming to 1.5°C above pre-industrial levels.[5] The IPCC (United Nations Intergovernmental Panel on Climate Change) warns that we have already reached 1.1°C.[6] In response, we've committed to reducing our Scope 1, 2 and 3 carbon emissions per-appliance-sold 50% by 2030, and 90% by 2050, from a 2020 baseline.

As a company, we've always seen sustainability and innovation as walking hand in hand. Sustainability has been a key part of our thinking since we moved away from solvent-based paints 50 years ago. Since then, we've introduced successful appliance recycling initiatives, designed lighter appliances, reduced plastic packaging, eliminated ozone-depleting refrigerants and designed highly efficient washing machines. However, over time, we've also seen sustainability become a broad concept. Narrowing the focus to carbon allows us to focus our efforts into the most impactful areas of action into the future.

'Designed in Aotearoa New Zealand' and 'Design for a Changing World' are key concepts for Fisher & Paykel Appliances. How does carbon thread into these?

DANIEL For a long time, connection to the environment and our geographic location has shaped our thinking. The view from the periphery is often clearer. We see the world changing — the ways people live, work and interact, generational shifts, urbanisation trends. Carbon is inseparable from all these things; and drastically reducing carbon emissions is the movement of our time.

WE'RE PRIORITISING CARBON BECAUSE EMISSIONS REDUCTION IS A GLOBAL IMPERATIVE

DANIEL WITTEN-HANNAH
Managing Director and CEO

KANE ALWARD
VP Carbon Zero Transition and Research & Development

We know consumers are opting for brands that are serious about sustainability, and that's one of our core values. It plays out in every one of our design decisions and will drive our choices into the future. Sustainable innovation is an opportunity to develop better product solutions that create better value for the customer and better outcomes for the planet.

Let's talk about your prioritisation of Scope 3 carbon emissions. What progress have you seen since 2020?

KANE Scope 3 has been described as the most relevant and least measured category.[7] In 2020 we found that around 99% of our carbon emissions were in Scope 3. Of those, the majority result from the energy used to operate our appliances, which makes them Scope 3, Category 11, as defined by the Greenhouse Gas Protocol.

This was reconfirmed in 2024. Our latest figures show that we're tracking in the right direction, with a 21% reduction in our per-appliance-sold metric, compared to our 2020 baseline.

Scope 3 reveals some of the contradictions and complications of operating globally. For example, induction cooktops can potentially produce fewer emissions during use than gas cooktops. They do in New Zealand where the electricity grid is 88% renewable,[8] but that figure isn't matched in Australia, where there is more fossil-fuel energy generation. Is it just about waiting for so-called 'dirty grids' to become more renewable?

KANE Electricity grids will transition over time, but that will happen concurrently with a doubling or even tripling of lower-carbon energy demand for homes, transportation and process heat in industry.[9] The efficiency of our appliances is essential to reducing future energy demand. By prioritising carbon emissions reduction, we're supporting the rate and scale of change needed.

Is that the motivation behind Fisher & Paykel Home Solutions? Simplifying the process for household energy consumption to become carbon net zero?

DANIEL Residential and commercial buildings account for just over 40% of all energy-related carbon emissions globally.[10] The global path to carbon net zero requires the transformation of home energy.

Global grid transformation is central to this, as much as individual home energy use, but rethinking each home as an optimised system with minimal grid drawdown requirements is fundamental. Fisher & Paykel Home Solutions is about giving customers opportunities to choose integrated home-energy systems that help deliver warmer, drier, cooler and more energy efficient homes. It encompasses different customer goals, from better energy efficiency to fully carbon net zero homes.

KANE In some modelling, wind and solar are projected to meet 50-60% of global electricity demand by 2050,[11] however wind and solar are inherently intermittent, which makes the ability to load-shift,

to change the times when energy is used and store energy for later use, a key requirement for stable, lower-carbon electricity supply. Combining lower-carbon home-energy generation and storage is a way to contribute to more resilient energy grids, with lower energy peaks when power can be more expensive and more carbon intensive.

CONNECTED APPLIANCES ENABLE LOWER CARBON ENERGY CHOICES

With Fisher & Paykel Home Solutions reframing the home as a system, how does that translate into this year's decision to include appliance category level insights?

DANIEL Our business is built on innovation and has continued to evolve from our 2020 baseline as we design for a changing world. With Fisher & Paykel Home Solutions launching in Australasia, we're creating new opportunities for low-carbon living and have introduced new appliance categories, including hot water heating, solar and batteries. We're also designing for the whole-of-home as a system to more effectively reduce carbon emissions. Reporting at an appliance category level allows us to deliver deeper insights into what is really driving change in our carbon impact.

KANE Our 2020 baseline highlighted just how important the transition to renewable energy is. We now offer energy generation and management solutions alongside design expertise, so households can reduce emissions at a systems level rather than appliance by appliance. To help keep insights about our changing business visible, we're now reporting appliance category level insights. That transparency helps customers and partners understand our focus and progress against our per-appliance-sold carbon emissions goals and see where we're prioritising next.

What about the role of government? Europe has adopted new rules for importers of products to account for the different carbon costs in different geographical regions. New York has banned natural gas stoves and furnaces in most new buildings. Australian Capital Territory wants homes to transition to 100% electricity and disconnect gas by 2045.[12]

DANIEL Yes, governments certainly have an important role to play, but so do businesses and individuals. To reduce carbon emissions at pace, we need to transform economies, decarbonise energy systems and develop and deploy technologies that are scalable. We want to be a leader in the lower-carbon transformation. And we want to create future value for our business, partners, customers and people.

KANE We established the Carbon Zero SmartHome R&D Institute to accelerate disruptive product innovation. Appliance development typically generates less than 25% energy efficiency gains per decade.[13] That's not enough to shift the needle on emissions reduction to where we need to be by 2050.

Our ability to accelerate emissions reductions is multiplied if we can significantly reduce the cost of efficiency and technology. The R&D institute combines the expertise of our design and innovation teams with the Haier SmartHome Group and other science and tech partners. Each research challenge is a dedicated stream of work aiming to develop step-change innovation across appliances, platforms and whole-home solutions.

Finally, what are the key things that will get Fisher & Paykel to its 2050 emissions goal?

DANIEL All carbon emissions contribute to global warming; it makes no difference whether they are counted in Scope 1, 2, or 3. Our strategy is to focus on the areas of highest leverage, meaning the biggest savings of carbon emissions per unit investment or effort. We've developed an approach that connects what we are doing now with what we prioritise next, and the solutions that will deliver significant impact in the decades to come.

The first opportunity is to make carbon a lens for company choices at a facilities, fleet and supply chain level. Our carbon focus has been central to developing an approach that welcomes contributions from individuals and teams right across our company. Secondly, we have a pipeline of new, more energy-efficient appliances being delivered, as well as pioneering new technology platforms and connected ecosystems that will deliver greater efficiencies through integrated energy generation, storage and management.

We describe ourselves as the world's most human-centred appliance company. With that comes an obligation to support customers with information that makes carbon emissions part of purchase thinking, and to equip them with insights that will help maximise the energy efficiency of their appliances. In the end, impact at speed and scale requires a collective response in multiple areas.

OUR POSITION

PUBLISHED NOVEMBER 2025

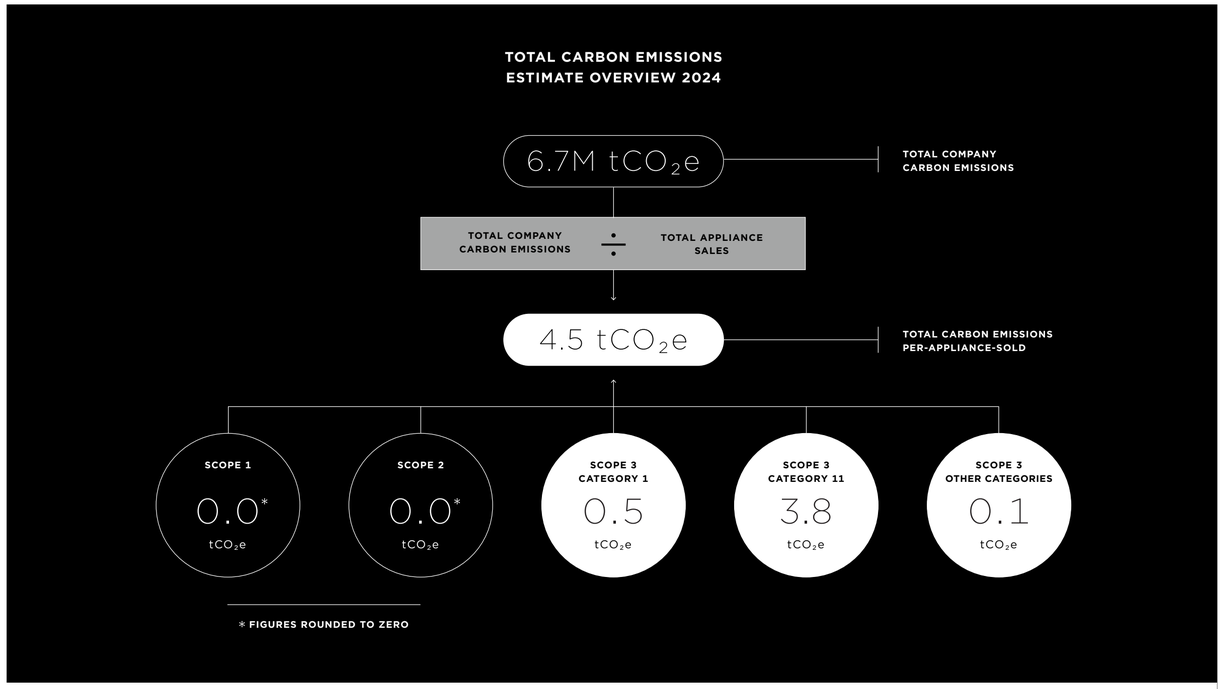
CARBON EMISSIONS ANALYSIS

We have chosen to set our carbon goals using a per-appliance-sold metric. This is calculated by dividing our total carbon emissions by the number of appliances we sell in each reporting year.

By dividing our total carbon emissions by annual sales, we are able to track progress for each appliance we sell without potential distortion when changes in annual sales affect our total carbon emissions.

We have articulated our goals to encompass all three scopes of carbon emissions. We focus on the areas of highest leverage across all three scopes, meaning the biggest impact on carbon emissions per unit investment or effort. The per-appliance-sold metric will show our progress on the critical factors that we can control for carbon emissions reduction, such as the energy efficiency of our appliances, and how we influence our customer's purchasing and usage choices.

While we have set our goals, and will assess our progress towards them using a per-appliance-sold metric, we will also continue to measure and report our total company carbon emissions for transparency. It is important to note that as we grow as a company, for example as we expand our appliance and service offerings and market share, it is possible that our total carbon emissions could increase.



Mapping the relationship between total emissions and per-appliance-sold emissions. Scope 1 and 2 emissions (0.004 and 0.01 tCO_2e respectively) round to 0.0.

A FULLY SCOPED INVENTORY

Scope 1 — 0.1% of our 2024 emissions

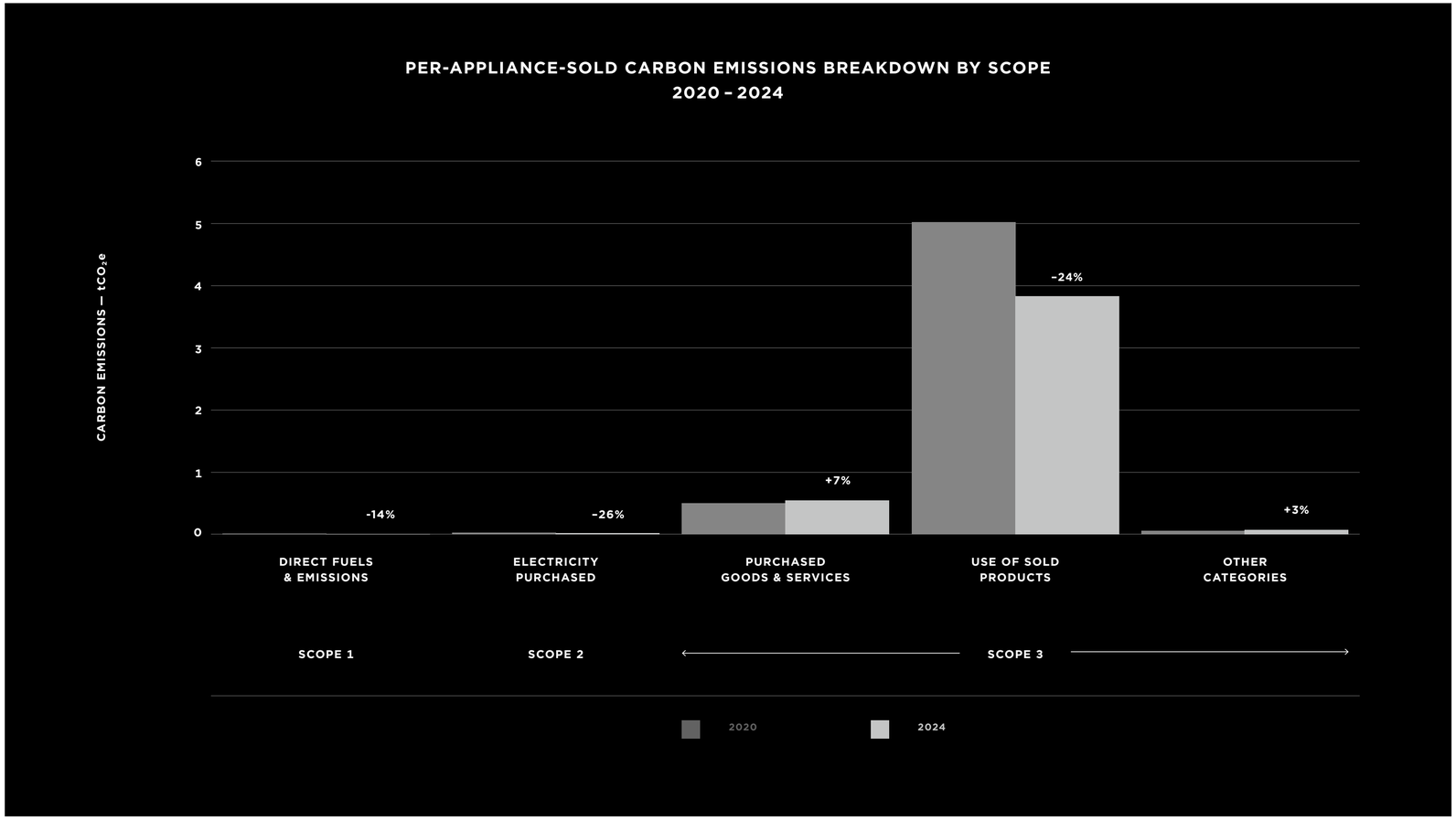
The primary source of these carbon emissions was the fuel used by our company vehicle fleet, the LPG used for manufacturing and HVAC losses (R22) at our sites.

Scope 2 — 0.3% of our 2024 emissions

The majority of these carbon emissions were the result of the electricity consumed by our Thailand factory.

Scope 3 — 99.6% of our 2024 emissions

The majority of Scope 3 carbon emissions — 86% — come from the Use of Sold Products (Scope 3, Category 11). This covers the energy usage of our appliances, refrigerant loss and indirect use-phase emissions including consumables, water usage and wastewater processing and servicing. While indirect use-phase carbon emissions are voluntarily reported under the Greenhouse Gas Protocol, we have included them as we believe we are able to influence emissions reductions in these areas. Gaining a deeper understanding of emissions in these areas also highlights opportunities for carbon reductions.



Of our emissions, 99% are Scope 3. Most result from the household use of our appliances.

PROGRESS SINCE 2020 BASELINE

Since our 2020 baseline, carbon emissions per-appliance-sold has fallen 21%, from 5.6 to 4.5 tCO_2e, while our total carbon emissions have dropped 13%. The smaller drop in total carbon emissions reflects the growth of our business. Our per-appliance-sold metric shows the dynamic nature of our carbon impact as a growing and diversifying business.

SCOPE 3 REMAINS OUR FOCUS

Scopes 1 and 2 together make up 0.4% of our total emissions, and our focus remains on Scope 3. This is our biggest opportunity to reduce carbon emissions with Use of Sold Products (Scope 3, Category 11) accounting for 86% of carbon emissions.

DRIVERS IMPACTING ALL CATEGORIES

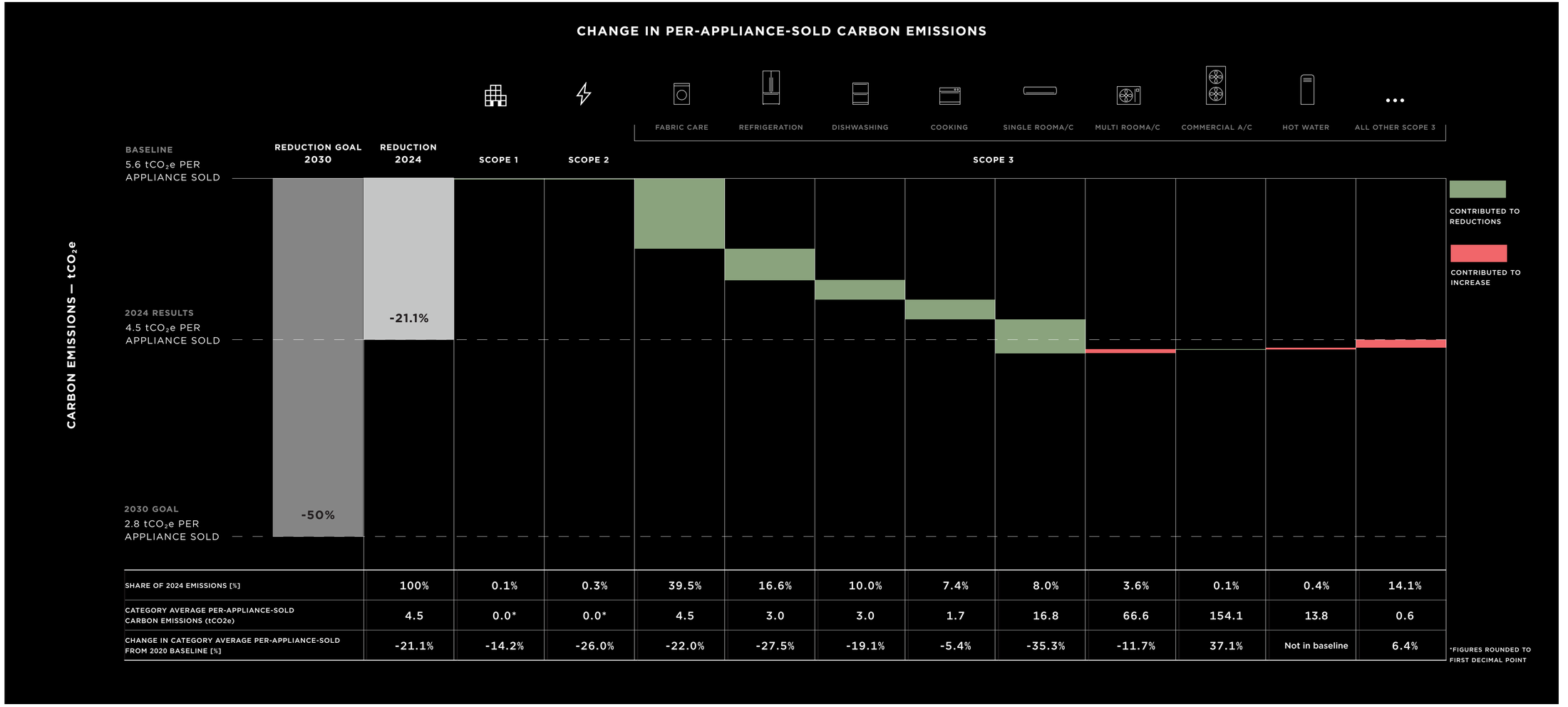
All categories have benefited from cleaner electricity grids, especially in Australia. We are also seeing the benefits from New Products and New Customer Choices, reflecting our Carbon Impact Strategy. Across every category, the per-appliance-sold carbon emissions intensity has reduced from baseline, except for Commercial Air Conditioning (and excluding Hot Water, which was not in the baseline).

CATEGORY HIGHLIGHTS AND RISKS

- **Fabric Care:**
  Fabric care contributed 40% of our overall emissions in 2024, so a 22% reduction per-appliance-sold within the category compared to baseline has had a significant impact. In part, this reduction is due to more consumers choosing heat pump dryers over vented options and our development of more efficient models introduced to the market.
- **Refrigeration:**
  Refrigeration contributes 17% of our overall carbon emissions, so a 28% drop in this category per-appliance-sold compared to baseline has also had a large impact. In addition to developing more energy-efficient models, in 2024 we phased out R134a (Global Warming Potential 1430) in favour of R600a (GWP 3) refrigerants in new refrigeration appliances.
- **Dishwashing:**
  Dishwashing per-appliance-sold carbon emissions have dropped 19% compared to baseline. In part this is due to the introduction of more efficient models.
- **Cooking:**
  Cooking's low category per-appliance-sold carbon emissions combined with rapid growth of cooking sales share in our portfolio has benefitted our overall per-appliance-sold carbon emissions.
- **Residential Air Conditioning & Hot Water:**
  We're beginning to see New Customer Choices evolving in Fisher & Paykel Home Solutions, with multi-room air conditioning trending upwards and heat pump hot water heaters entering our sales mix. Because these are energy-intensive categories on a per-appliance-sold basis, increases in their share of sales can offset reductions achieved in core home appliances.

  Meanwhile, single-room air conditioning has had the largest reduction in category per-appliance-sold emissions from baseline. This has come in part from energy consumption improvements and lower GWP refrigerants.
- **Commercial Air Conditioning:** Per-appliance-sold emissions in this category have increased 37% compared to baseline. This has limited effect on our overall per-appliance-sold emissions as this category has a small number of sales units that is largely driven by contract requirements.
- **Other Scope 3:** All other Scope 3 emissions have risen by 6% compared to baseline. This change is driven mainly by our Purchased Goods and Services (Scope 3, Category 1). We estimate this category using spend-based accounting, a common approach that estimates emissions based on cost. Because it doesn't reflect each supplier's exact processes, the numbers are approximate. We're partnering with suppliers to collect better data so we can see the real impact of what we buy.

CHANGE IN PER-APPLIANCE-SOLD CARBON EMISSIONS



SHARE OF 2024 EMISSIONS [%]	100%	0.1%	0.3%	39.5%	16.6%	10.0%	7.4%	8.0%	3.6%	0.1%	0.4%	14.1%
CATEGORY AVERAGE PER-APPLIANCE-SOLD CARBON EMISSIONS (tCO2e)	4.5	0.0*	0.0*	4.5	3.0	3.0	1.7	16.8	66.6	154.1	13.8	0.6
CHANGE IN CATEGORY AVERAGE PER-APPLIANCE-SOLD FROM 2020 BASELINE [%]	-21.1%	-14.2%	-26.0%	-22.0%	-27.5%	-19.1%	-5.4%	-35.3%	-11.7%	37.1%	Not in baseline	6.4%

*FIGURES ROUNDED TO FIRST DECIMAL POINT

This graph shows the change in our per-appliance-sold emissions since baseline, and how each of our categories have contributed to that change.

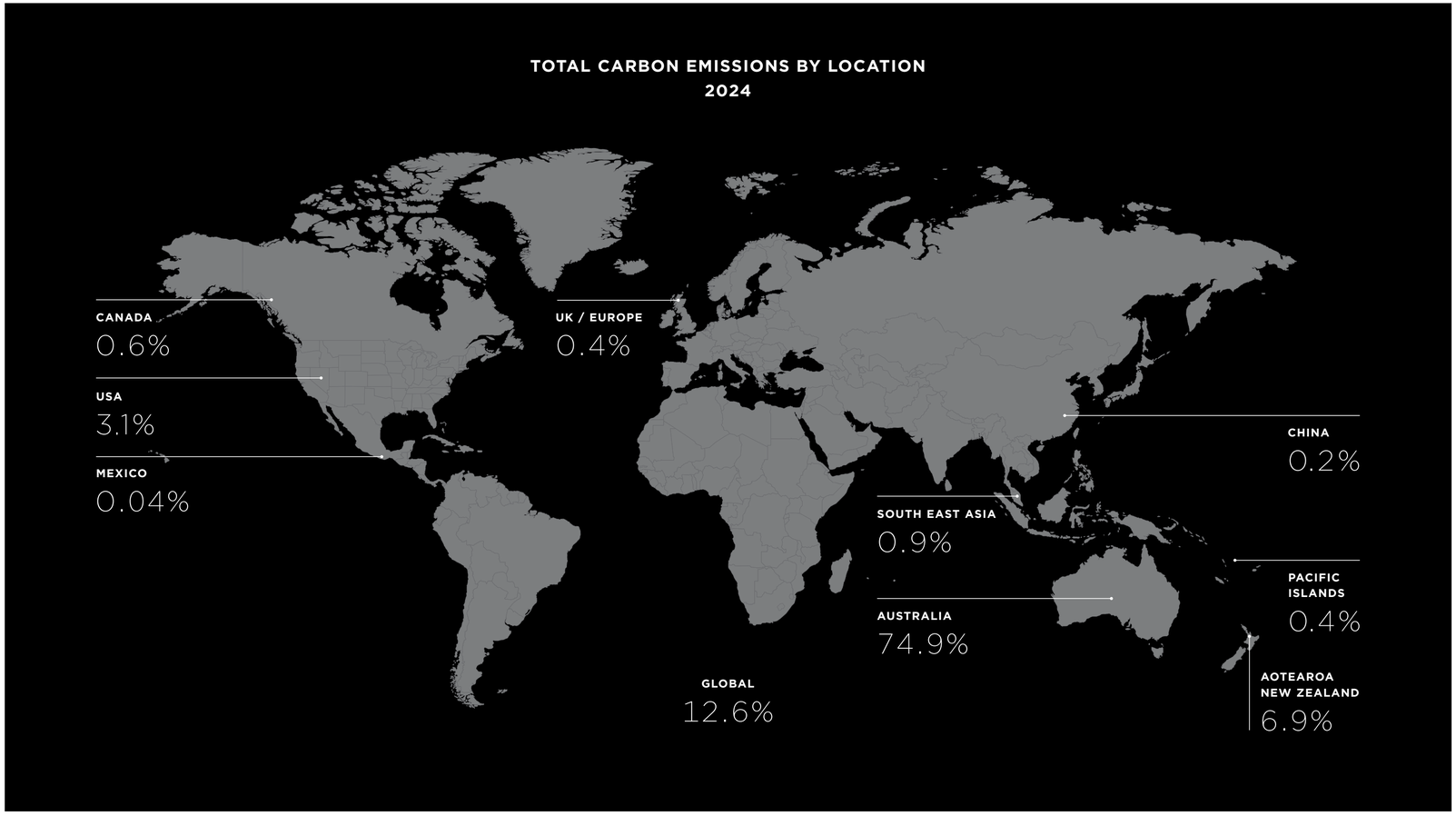
The size and colour of the bars show overall contribution based on changes in each category's per-appliance-sold carbon emissions and sales share.

Green bars show the category contributed to reducing our overall per-appliance-sold carbon emissions. Red bars show it contributed to increasing our overall per-appliance-sold carbon emissions.

For further detail please see Section 6 of the Appendix on page 36.

MAPPING IMPACT

Three main factors significantly affect our total emissions in each market: sales quantity and the mix of appliances that customers purchase, the efficiency of our appliances, and the carbon emissions intensity of respective electricity grids.[14]



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Global includes carbon emissions that aren't reported by market. Most of these emissions come from production activities.

In Australia, there are high carbon emissions associated with electricity production.

KEY CHALLENGES

1 REDUCING APPLIANCE-IN-USE EMISSIONS AT SPEED AND SCALE

After assessing our carbon emissions and identifying Scope 3's largest target areas, our challenge is to establish what can be achieved in a short-term timeframe.

Our teams are working to accelerate carbon emissions reductions within current technological and economic systems by developing more efficient appliances and influencing consumer preferences towards these solutions.

However, we believe more significant and disruptive innovation is required to achieve our goals. Achieving this requires leaps rather than steps — new appliances, new platforms and new ecosystems.

2 ACHIEVING CARBON EMISSIONS REDUCTIONS AND COMPANY GROWTH

In the future economy, environmental, social and commercial goals must exist in alignment, not in conflict.

Our aim is to be a leader in the transformation to a lower-carbon economy and to create increasing future value for our business, partners, customers and people.

To align these goals, we have set per-appliance-sold carbon emissions reduction goals. We believe our Carbon Impact Strategy will deliver better solutions to evolving customer needs, helping us win business from competitors, scaling up our positive impact.

3 HELPING CUSTOMERS REDUCE APPLIANCE-IN-USE EMISSIONS

Customers often lack information about an appliance's operational carbon emissions. Providing easily accessible in-use energy carbon emissions estimates informs a customer's purchasing decisions to right size a solution-set to their needs.[15]

By harnessing performance data through Connected Appliances, we could help customers make lower-carbon choices in the day-to-day operation of such appliances. The potential of Connected Appliances is to illustrate relationships between daily choices — cycle, load size, time of operation — and carbon emissions. Over time, this will help us fully support the customer journey from purchase to daily use.

4 ACCELERATING THE TRANSITION TO LOWER-CARBON GLOBAL ENERGY

Fossil-fuel-based electricity generation currently accounts for nearly 60% of global generation.[16] Replacing carbon-intensive energy generation with lower-carbon sources will have the greatest impact on Scope 3 carbon emissions.

However, the global transition to a lower-carbon energy supply will take time, and we have limited influence over its speed. Our role in the transition is at an appliance and ecosystem level.

At an appliance level, optimising efficiency will help lower emissions where energy is not yet lower carbon, helping to address the potential overdemand on energy systems as fossil fuels are phased out.

At an ecosystem level, our Fisher & Paykel Home Solutions energy generation and management options will help decarbonise homes by providing customers with lower-carbon electricity independence and optimisation.

5 COLLABORATING WITH GLOBAL PARTNERS ON NEW SOLUTIONS

Reducing appliance-in-use energy emissions will require the understanding and collaboration of our global network of suppliers.

We believe greater appliance-in-use carbon emissions reductions will be the result of collective effort, rather than the endeavour of any single company.

While we operate in competitive global markets, delivering emissions reductions at speed and scale will require the sharing of key insights with cross-sector partners who can contribute to fast-tracking impact and creating more opportunities for significant global carbon emissions reductions.

OUR STRATEGY

PUBLISHED NOVEMBER 2025

OVERVIEW

Our Carbon Impact Strategy is a lens that guides how we operate, how we create and how we collaborate to reach our carbon goals.

Our ongoing carbon emissions measurement informs our strategy; specifically, the significance of emissions sources and the areas for most effective reduction.

We can reduce our carbon emissions per-appliance-sold by taking action across our entire value chain, from the suppliers producing the raw materials we use to make our appliances, right through to the people using our appliances at home to preserve their food, cook delicious meals and care for cherished garments.

WE'RE PRIORITISING DECARBONISATION UPSTREAM AND DOWN

To address appliance-in-use carbon emissions, we have a role to play both in the design of more energy efficient appliances and the education of customers about their operational carbon emissions, at the time of purchase, and ways they can maximise an appliance's energy efficiency across its lifetime of use in the home.

Through investment in research and development, we hope to unlock step-change technological innovations, while the growth of our Fisher & Paykel Home Solutions enterprise will make lower-carbon energy generation more accessible across Australasia.

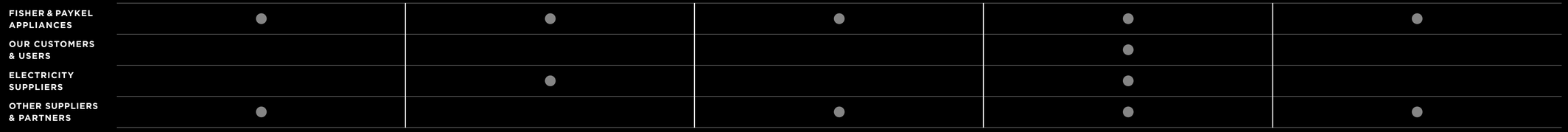
We will also work with our wider supply chain to make lower-carbon sourcing decisions.

While we have greater control over our operational carbon emissions compared to the rest of the value chain, our strategy reflects our commitment to look for the highest impact opportunities across Scopes 1, 2 and 3. Globally, electricity suppliers also have a role to play in providing lower-carbon energy generation, reducing the amount of carbon per kilowatt-hour in our markets.

With all other suppliers, we are seeking opportunities to source lower-carbon parts and raw materials while introducing new technologies that can reduce embodied carbon in our appliances and organisation.

TOTAL CARBON EMISSIONS 2024
SOURCE CONTRIBUTION

WHO CAN INFLUENCE REDUCTIONS OF THESE CARBON EMISSIONS?



OUR CARBON IMPACT STRATEGY

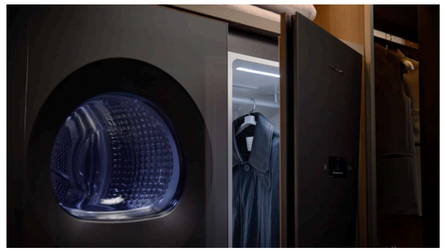
1 NEW COMPANY CHOICES

Reducing carbon emissions in impactful ways across facilities, fleet and supply chain in all three scopes, including:

Transitioning to lower-carbon energy on company-owned sites.

Improving energy efficiency and reducing waste in all operations.

Sourcing lower-carbon raw materials for our appliances.



2 NEW PRODUCTS

Introducing appliances that are significantly more energy efficient, including:

Upgrading current appliance platforms and designing new appliances with significantly enhanced energy efficiency and lower lifetime carbon emissions.

Designing new appliance cycles that give consumers more opportunities to reduce energy consumption.

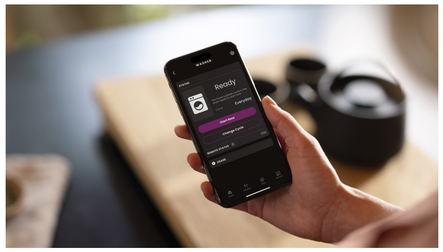
3 NEW CUSTOMER CHOICES

Developing solutions that maximise the energy efficiency of our current appliance portfolio, including:

Improving our product range with strategies to progressively eliminate the most carbon intensive appliances.

Influencing purchasing behaviour by helping customers understand the carbon emissions of different appliance choices.

Informing customers about optimising appliance use to minimise energy-related carbon emissions. Also providing insights into how our appliances can help customers avoid carbon emissions, e.g. by reducing food waste or fabric wear and tear.



4 NEW TECHNOLOGIES

Investing in research, development and disruptive innovation to fast-track home energy use decarbonisation.

Establishing the Fisher & Paykel Carbon Zero SmartHome R&D Institute, we've begun investing in performance innovation across appliances, platforms and whole-of-home solutions, providing opportunities to:

Accelerate carbon emissions reductions at scale through significant energy efficiency and technology cost reductions.

Combine our design, manufacturing and innovation expertise with the Haier SmartHome Group and other expert partners, globally.

5 NEW ECOSYSTEMS

Contributing to the creation of carbon net zero homes through integrated energy generation and management, and data-driven ecosystems.

Evolving connected appliance ecosystems to support carbon emissions reduction through load-shifting and releasing new software updates that deliver additional energy-efficiency benefits.

ABOUT OUR CARBON IMPACT ROADMAP

Our roadmap reflects the best of our current knowledge on how we will achieve our 2030 and 2050 goals. Naturally, we are clearer on the near-term actions we can take to achieve our 2030 goals, as we work to increase the trajectory of energy and carbon emissions reduction we will need to maintain through 2050.

We will gain more clarity on the longer-term breakthroughs we need to achieve our 2050 goals in the coming years, both through the step-change technologies from our own R&D Institute and the benefits from wider industry and government as they tackle variables such as national grid decarbonisation and the development of lower carbon technologies. We will monitor and share our progress and update our roadmap to reflect our strategy over time.

OUR CARBON IMPACT ROADMAP 2024

	STRATEGY	CURRENT TARGETS	ADDITIONAL FUTURE OPPORTUNITIES
1	NEW COMPANY CHOICES	Transition sites and vehicles from fossil fuels to renewable energy Work with key suppliers to reduce carbon emissions for parts and materials	Choose lower-carbon manufacturing, logistics and travel
2	NEW PRODUCTS	New appliances prioritise class-leading energy performance Eliminate refrigerants with high global warming potential	Breakthrough technologies enable new appliance platforms
3	NEW CUSTOMER CHOICES	Marketing to influence consumer demand towards our most efficient appliances User guidance on energy consumption and carbon emissions in real use	Lower-carbon business models
4	NEW TECHNOLOGIES	Develop breakthrough technologies with Carbon Zero SmartHome R&D Institute	Lower-carbon technologies
5	NEW ECOSYSTEMS	Fisher & Paykel Home Solutions Business as the leading Whole Home Energy Solution provider in Australasia	Lower-carbon partnerships
	CARBON GOAL Reduce carbon emissions per-appliance-sold from our 2020 baseline	↓ 50% BY 2030	↓ 90% BY 2050

Our roadmap aligns with the five key areas of our Carbon Impact Strategy.

OUR PROGRESS

PUBLISHED NOVEMBER 2025

CASE STUDIES

From new company choices to the creation of new ecosystems, the following select case studies show how we are bringing our Carbon Impact Strategy to life across Scopes 1, 2 and 3.

NEW COMPANY CHOICES

Two company-level actions contributing to carbon emissions reduction and energy efficiency improvements across facilities and supply chain.

1 FISHER & PAYKEL NEW GLOBAL HEADQUARTERS, AUCKLAND

Building a lower-carbon workplace through site-led design and construction partnerships.

In 2024, as we approach our 90th anniversary, we broke ground on our new headquarters in Penrose, Auckland.

Sustainability has informed every stage of this project, from site selection through to construction, and guided our choice of partners. This campus represents an investment in the future of our people, our culture, and our commitment to design-led innovation.

Lower-carbon commuting and protecting natural features

Our new location in Penrose provides great accessibility and connectivity. It is situated near arterial routes and is an easy ten-minute walk from Penrose train station. By better integrating with Auckland's transport system, we are giving our people more low-carbon commuting options.

From the outset, we worked with the site's natural features, rather than override them.
Early assessments revealed a crater within the basalt lava flow. Instead of filling it in, we embraced this feature as an opportunity to enhance on-site biodiversity and manage stormwater naturally. It also creates a unique, sheltered outdoor space for our teams and visitors to enjoy.

Understanding embodied carbon emissions in construction

For the design and construction of our new campus, we selected partners who aligned with our environmental values and possessed the necessary expertise in sustainable building practices: RTA Studio and Naylor Love. Here's how we are building our understanding of emissions reduction opportunities in the construction phase:[17]

- Waste diversion: as of May 2025, 96% of construction waste has been diverted from landfill through on-site sorting and partner take-back streams (including a waterproofing membrane scheme).
- Lower-emissions travel and plant: suppliers and contractors are encouraged to use electric vehicles on site and for trips to and from site..
- Data to drive down fuel use: licence-plate tracking helps us monitor vehicle movements and estimate fuel use.

By embedding sustainability into decisions regarding the design, construction, and location of our new headquarters, we are taking meaningful steps toward creating a more resilient, low-carbon future for our business and our people

2 EMBEDDING ENERGY MANAGEMENT IN OUR THAILAND FACTORY

Driving reductions in electricity carbon emissions through a cross-functional platform.

Our Thailand factory is the number one contributor to our global Scope 2 carbon emissions, making up 84% of all Scope 2 in 2024.

To tackle this, the team has implemented a range of carbon reduction initiatives across the operation, including replacing chillers and aging equipment with higher-efficiency models and installing motion-sensor lighting.

In 2024, the team built on these efforts and established an Energy Management Working Group. This initiative makes carbon savings a formal factory KPI and provides greater focus and coordination for ongoing and future initiatives.

Thanks to the thoughtful and committed work of our Thailand team, we have reduced electricity emissions by 17% since 2020 at this site, which represents 2.06 kg CO_2e less per-appliance-sold.[18]

NEW PRODUCTS

Refrigeration that goes beyond significant energy efficiency gains to lift food preservation to new levels and help avoid food waste. And low current induction cooktops that deliver high-performance cooking.

1 36" INTEGRATED SERIES 11 REFRIGERATOR FREEZER

Reducing energy use while keeping food fresher for longer.

Launched in the United States and Canada in 2024, our 36" Integrated Series 11 Refrigerator Freezer has been recognised with the U.S. Environmental Protection Agency's ENERGY STAR® Most Efficient[19] mark. This is the Agency's highest mark for energy performance.

When compared with the next closest energy-rated model in its Canadian class[20], the Series 11 produces about 24% fewer annual in-use carbon emissions. Against the least efficient model[21], the saving is 42%. These results are driven by technologies such as Vacuum Insulation Panels (VIPs), which slow down heat transfer, and ActiveSmart controls, which learn how the fridge is used on a day-to-day basis and adjust cooling to save energy while still keeping food fresh.

While food waste is not included in our carbon emissions measurement, it is responsible for approximately 8%[22] of the world's carbon emissions.

The 36" Integrated Series 11 Refrigerator Freezer is designed to reduce waste by creating optimal storage environments for different foods. The Variable Temperature Drawer (VTD) with a pantry mode is one example of this focus. The drawer provides ideal conditions for commonly wasted items like bread and fruit, maintaining stable temperatures with fluctuation not exceeding 2°C and less than 2°C of stratification, thanks to its dedicated evaporator and thermal insulation.[23]

2 REMOVING THE WIRING BARRIER TO INDUCTION

Making induction accessible with low-current cooktops.

Our Low Current Induction Cooktops make it easier for households to switch from gas to high-performance, electricity-powered cooking.

Induction technology heats cookware directly, not the air or cookware surface. This can result in faster heat-up times, precise temperature control, and reduced wasted heat compared to gas methods. Induction surfaces typically cools fast and doesn't release harmful pollutants for a safe and healthy kitchen.[24]

However, despite these advantages, existing household wiring remains a barrier to adoption. Typically, induction models draw more current than regular household outlets provide and can require expensive rewiring. This can discourage households from making the switch. To overcome this hurdle, we have introduced a low-current range in Australia and New Zealand. These models operate on significantly less current, reducing or eliminating the need for electrical upgrades. They are also well-suited to apartments where the electricity supply per unit is capped.

Currently available in our Series 5 range, our new Series 7 lineup will also include low-current options. This opens up the potential for more households to transition from gas to high-performance electric cooking. By removing wiring barriers, we are enabling the wider adoption of induction.

NEW CUSTOMER CHOICES

Influencing purchasing behaviour towards the most energy-efficient appliance solutions within our existing product portfolio.

1 CREATING TRANSPARENCY AROUND APPLIANCE CARBON EMISSIONS

Providing clear in-use carbon estimates at the point of purchase to guide informed decisions.

In 2024, we introduced In-Use Energy Carbon Emissions Estimates (IECEEs) to our websites to give customers great transparency regarding this important criterion. IECEEs let customers compare the in-use estimated energy carbon emissions of different appliances by displaying their in-use carbon dioxide equivalents (CO_2e).

With a clear benchmark for comparison, customers can now prioritise lower-emission appliances alongside other decision factors, such as capacity, functionality, and aesthetics.

2 INFLUENCING LOW-CARBON DECISIONS VIA CONTINUED PROFESSIONAL DEVELOPMENT

Providing architects with tools to specify lower-carbon appliances.

Architects and designers play a critical role in shaping how homes use energy, and their choices directly influence the long-term carbon footprint of residential spaces. In 2024, we developed a global Continued Professional Development (CPD) course to start

a dialogue about how the appliance industry, architects and designers can work together to specify low carbon appliances from the earliest stages of design.

"Collaborative Responsibility: Reducing Carbon Footprint Through Sustainable Appliance Choices in Residential Environments" is now accredited by four professional membership bodies across five countries[25] and introduces practical principles for reducing operational emissions. These principles include:

- Selecting electric over gas appliances
- Prioritising the most energy-efficient technologies
- Futureproofing with connected appliances that can sync with the electricity grid

We also showcase appliance innovations that that help to reduce operational emissions, such as heat pump technology, induction cooktops and DishDrawer™ dishwashers.

Following this initiative, attendees are exploring our range with a deeper appreciation for sustainability, visiting our Experience Centres, and starting project discussions earlier with our Design Development Managers. Many participants have credited the course for helping them guide less sustainability-focused clients toward lower-carbon choices.

Through the CPD we contribute to the collective understanding by providing data and insight-driven innovations. The insights support and inform the different choices made by both the client and the architect during the design journey.

NEW TECHNOLOGIES

Because the incremental energy efficiency gains of traditional product development cycles are not enough to shift the needle on carbon emissions by 2050, we're investing in research and innovation with the potential to fast-track home energy decarbonisation.

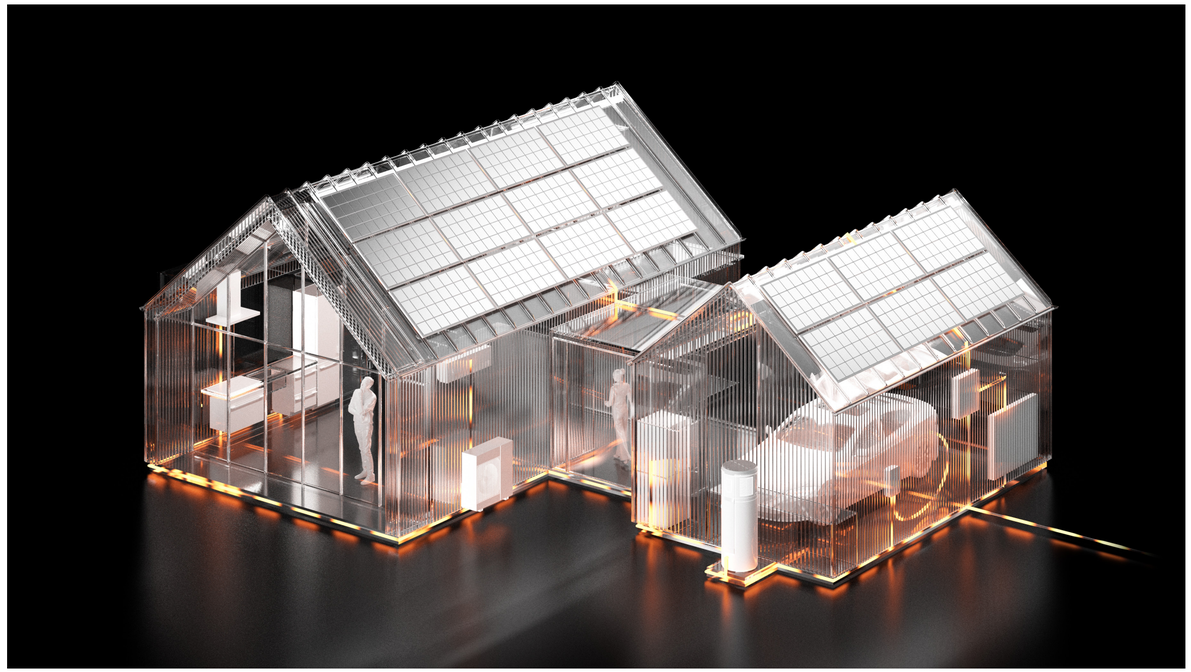
1 CARBON ZERO SMARTHOME R&D INSTITUTE

Advancing research to accelerate home energy decarbonisation.

In 2024, the Carbon Zero SmartHome R&D Institute continued with its mandate to create and invest in global partnerships that can meaningfully contribute to home decarbonisation. It has initiated research projects, and is investigating breakthrough technologies for cooking, laundry and dishwashing appliances.

THE R&D INSTITUTE IDENTIFIES AREAS WITH POTENTIAL FOR SIGNIFICANT CARBON REDUCTION

Our R&D Institute is set up to consider the whole-of-home ecosystem. This scope encompasses home appliance design, home energy generation, storage, and management, as well as home design and construction. The Institute focuses on long-term innovation, establishing systems, processes, and teams to explore new science and technologies, and seek opportunities to amplify innovation through the global expertise of the Haier SmartHome Group and cross-sector partners. Back in 2022, the R&D Institute and the New Zealand Product Accelerator launched their first research challenge, looking at thermal insulation performance. This project explored how reducing heat transfer in temperature-controlled appliances can significantly reduce energy consumption. This project is ongoing and in 2024 was led by Earth Sciences New Zealand, with Fisher & Paykel contributing application knowledge and business context. The project has multi-year funding and multiple work streams underway.



NEW ECOSYSTEMS

Contributing to the creation of carbon net zero homes through integrated energy generation and management systems, and to the overall energy efficiency of the home through data-driven ecosystems.

1 HEAT PUMP HOT WATER SYSTEMS

Lowering household emissions with energy-efficient water-heating technology

Water heating accounts for around a quarter of household energy use in Australia[26], making it the second-largest domestic energy cost after air conditioning.

Heat Pump Hot Water Systems offer an energy-efficient solution to the status quo and the potential to significantly reduce in-use emissions.

In 2024, we continued to deepen our commitment to this technology by adding two new appliances to our range. By drawing warmth from the surrounding air, heat pump water heaters offer a highly efficient solution—using 64% to 68% less energy than traditional electric-resistance water heaters, meaning lower in-use emissions.[27]

Our systems are also designed with in-built smart controls so homeowners can prioritise periods of lower-carbon grid intensity and connect directly with rooftop solar PV to maximise the use of clean energy. All monoblock models use the natural R290 refrigerant, which boasts a low GWP.

By combining advanced technology, renewable energy and low-GWP refrigerants, households can significantly reduce their climate footprint without compromising daily comfort.

2 THE LIVING HOUSE SETS A NEW CARBON-POSITIVE BENCHMARK

A modular, low-cost home that generates more energy than it consumes.

The Living House is an 85 m^2 gable-roofed, three-bedroom home designed by architects RTA Studio to be a working model for low-cost, low-carbon living in New Zealand.

Carbon modelling shows a balance of –12,056 $kgCO_2e$[28], meaning this modular home is not only affordable but climate-positive.

As a key partner, Fisher & Paykel Home Solutions contributed to thermal design modelling and the specification of HVAC, solar and hot water systems.

The solar system, sized for a low energy home, supported a 40%[29] reduction in overall energy use. With a 7.12 kW solar package, including battery storage, modelling showed that electricity consumption could be reduced by up to 75-80%.[30]

Through this partnership, we helped ensure that the Living House would be warm, dry and comfortable year-round, while costing less to run than a typical New Zealand household.

By proving that modest, accessible housing can be carbon-positive, The Living House sets a new benchmark. It shows how design and technology together can reduce construction costs and emissions, paving a practical pathway towards climate-zero living in New Zealand

SUMMARY

PUBLISHED NOVEMBER 2025

SUMMARY

For 90 years, Fisher & Paykel Appliances has designed the future. We're at the beginning of our decarbonisation journey but have a long history of sustainability focused decision making.

Our goal is to reduce carbon emissions per-appliance-sold 50% by 2030 and 90% by 2050 from a 2020 baseline, while also achieving company growth.

For our business, Scope 3 is where our greatest emissions lie and where we will have the greatest impact. Reimagining our appliances is fundamental to achieving our goals because emissions reduction combined with increased market share creates a compounding effect.

To counter this, we need to radically rethink the way we design appliances and technology platforms, and how they operate in larger energy ecosystems within the homes of our customers. Some improvements will be iterative, but the most significant improvements will be the result of step-change innovations. At this stage we don't have all the answers or technologies to deliver the transformational change required to achieve our commitments. What we do know today is reflected in our Carbon Impact Strategy and Roadmap.

WE'RE A LEGACY BUSINESS WITH A CLEAR VIEW OF THE CHANGES REQUIRED TO MAKE A POSITIVE IMPACT

Our carbon goals are an opportunity to inspire our teams to design and deliver better appliances—appliances that will deliver better customer outcomes and experiences, and better environmental and climate outcomes.

If we can approach this challenge with relentless optimism, harnessing the pioneering spirit that Fisher & Paykel was founded on, we will make a meaningful contribution to per-appliance-sold carbon emissions reduction for our company, our customers and our collective future.

APPENDIX

PUBLISHED NOVEMBER 2025

IMPORTANT INFORMATION

We voluntarily report our carbon emissions as context for our Carbon Impact Report.

This summary outlines the boundaries, scope of measurement and key limitations of our carbon emissions inventory.

1 2024 INVENTORY

We have prepared our 2024 carbon emissions inventory in accordance with:

Standards:
- ISO 14064-1:2018 — Greenhouse Gases Part 1
- Greenhouse Gas Protocol — a Corporate Accounting and Reporting Standard
- Greenhouse Gas Protocol — a Corporate Value Chain (Scope 3) Accounting and Reporting Standard

Guidance:
- Greenhouse Gas Protocol — Scope 2 Guidance
- Greenhouse Gas Protocol — Scope 3 Calculation Guidance

The inventory covers 1 January 2024 to 31 December 2024.

2 ORGANISATIONAL BOUNDARIES

We use the operational control approach under the Greenhouse Gas Protocol to define our organisational boundaries for carbon accounting.

The inventory covers the activities of Fisher & Paykel Appliances Limited and all of its subsidiaries, with the following exceptions:

- Any activities Fisher & Paykel Appliances Limited and its subsidiaries carry out relating to the Fisher & Paykel Technologies business.
  The lifetime carbon emissions of DishDrawer™ Dishwashers manufactured by FPA on behalf of GE Appliances under Use of Sold Products (Scope 3, Category 11). GE Appliances is also part of Haier Group. FPA does not account for these emissions to avoid double counting within the Haier Group.

3 SCOPE OF MEASUREMENT

Measurement covers the Scope 1, Scope 2 and all 15 Scope 3 Categories under the Greenhouse Gas Protocol.

Some optional carbon emissions sources are also included in measurement and the totals in our Carbon Impact Statement.

SCOPE	CATEGORY		INCLUSION AND/OR APPLICABILITY FOR FPA	OPTIONAL CARBON EMISSIONS INCLUDED IN SOURCE AND CATEGORY
1			Included	Direct emissions from R22 refrigerant losses
2			Included	—
3	1	Purchased goods and services	Included	—
	2	Capital goods	Included	—
	3	Fuel and energy related activities	Included	—
	4	Upstream transportation and distribution	Included	—
	5	Waste generated in operations	Included	—
	6	Business Travel	Included	Hotel stays
	7	Employee commuting	Included	Employee remote working
	8	Upstream leased assets	N/A — Carbon emissions from upstream leased assets are included in Scope 1&2	—
	9	Downstream transportation and distribution	Included	—
	10	Processing of sold products	N/A — Our appliances are sold as finished goods	—
	11	Use of sold products	Included	Indirect use phase activities from water usage and wastewater processing, consumables and servicing
	12	End-of life treatment of sold products	Included	Transportation of appliances to a landfill or recycling facility
	13	Downstream leased assets	N/A — We are not a lessor	—
	14	Franchises	N/A — We do not operate franchises	—
	15	Investments	N/A — Scope 1&2 carbon emissions of any subsidiaries that are invested in by other subsidiaries within Fisher & Paykel Limited have already been accounted for under Scope 1&2	—

4 KEY ASSUMPTIONS AND LIMITATIONS

Carbon emissions accounting is inherently challenging, particularly for Scope 3 Categories that measure activity outside of our direct operations.

Where necessary due to a lack of activity data, we rely on secondary sources, assumptions, estimates or proxies in our carbon emissions accounting. We were guided by our consultants, thinkstep-anz and Sphera, in this approach when establishing our 2020 baseline.

Key limitations and assumptions relating to our two most significant carbon emissions categories are summarised below:

i. Purchased Goods and Services (Scope 3, Category 1) assumptions and limitations

Purchased goods and services covers:

a. Production-related goods and services:

- Where necessary due to a lack of data, production–related goods and services carbon emissions are spend-based estimates using FPA's 2020 average tCO_2e per NZD based on China Eora (2015) factors adjusted for 2020 inflation.

b. Non-production related goods and services:

- Where necessary due to a lack of data, Purchased Finished Goods (appliances that are manufactured on our behalf) are proxied based on the average raw material and manufacturing production emissions of an appliance produced in a Fisher & Paykel factory.
- Where necessary due to a lack of data, all other non-production goods and services carbon emissions are spend-based estimates using FPA's 2020 average tCO_2e per NZD based on New Zealand Eora (2015) factors adjusted for 2020 inflation.

Limitations of the spend-based method

- 'Spend-based' estimates are widely used in carbon accounting however they do have limitations. For example, they assume a linear correlation between emissions and spend and lack specificity of actual manufacturing and production processes. While we are using China Eora factors for production-related spend, we understand that our suppliers will manufacture in other countries. While we are using New Zealand Eora factors for non-production related spend, we do have spend in markets outside of New Zealand.

ii. Use of Sold Products (Scope 3, Category 11) assumptions and limitations

- Use of sold products estimates the lifetime in-use carbon emissions of Fisher & Paykel branded appliances, Haier branded appliances, DCS branded appliances and Haier branded appliances, DCS branded appliances, DeLonghi branded appliances and Elba branded appliances that FPA sell and distribute each year. Spare parts and accessories that do not require energy to operate are excluded from Scope 3, Category 11.
- For the purposes of our carbon emissions accounting, a lifetime of 20 years is assumed for all appliances.
- Lifetime in-use carbon emissions covers:

a. Energy (fuel and/or electricity use of an appliance)

- Appliance energy usage is estimated based on the energy consumption data set out on the country/region-specific regulated energy standards label. These Energy Labels state how much energy an appliance uses during its operation in specific test conditions. Appliances with no energy label are proxied based on a comparative appliance's energy label where possible or an appliance category average value where necessary. These were extrapolated out to a lifetime energy usage using annual usage factors in the relevant market's standards methodology.
- For select appliances that belong to appliance categories that do not have mandated energy labels in any of our markets, we estimated lifetime energy usage based on internal data. These appliances represent a very small proportion of sales.
- A country-specific electricity emissions factor was used based on the market the appliance is sold into. Country-specific electricity emissions factors from the IEA were used based on the market the appliance is sold into. The European Union factor was used for appliances sold into the European Union; the Australia factor was used for appliances sold into the Pacific; and the Thailand factor was used for appliances sold into South East Asia. To be conservative, all gas-fuelled cookware was modelled with LPG rather than propane.

b. Refrigerant Losses

- Where applicable, refrigerant loss over the appliance's lifetime is estimated to be 50% of the total amount of refrigerant charged during manufacture. Emissions factors for refrigerant gases are sourced from the New Zealand Ministry of the Environment.

c. Consumables usage where applicable

- Consumable dosage rates are based on internal data. Consumables are assumed to be dosed once per day over an appliance's lifetime. Emission factors for consumables were modelled by thinkstep-anz using Sphera's GaBi database (2021).

d. Water usage and wastewater treatment where applicable

- Appliance water usage is estimated based on the water usage data set out on the country-specific regulated water standards label. These water labels state how much water an appliance uses during its operation in specific test conditions. Appliances with no water label are proxied based on a comparative appliance's water label where possible or an appliance category average value where necessary. These were extrapolated out to a lifetime water usage using annual usage factors in the relevant market's standards methodology.

- Where necessary due to a lack of a country specific water and wastewater emissions factor, country-specific emission factors were modelled by thinkstep-anz using Sphera's GaBi database (2021).

e. Servicing of appliances

- DCS appliances were assumed to not require servicing as they are primarily outdoor cooking appliances.
- Servicing carbon emissions for Fisher & Paykel branded, Haier branded, Elba branded and Delonghi branded appliance covers:

- **Production of replacement parts**
  - Estimated by scaling the average production carbon emissions of an appliance manufactured in a Fisher & Paykel factory down using the weight difference between an average appliance and an average spare part. Total spare parts is based on internal data showing the estimated percentage of appliances sold requiring replacement parts over lifetime.

- **Mileage of service callouts**
  - Estimated using an assumed 30km round trip by a diesel vehicle >3000cc and internal data estimating the percentage of service callouts carried out by external contractors over the lifetime of the appliance (internal contractor emissions are already covered under Scope 1). The carbon emissions factor for the diesel vehicle per km is from the New Zealand Ministry for the Environment emissions factors.

Key limitations of in-use assumptions

- Accounting for the lifetime emissions of electronic appliances is low in certainty. Our estimates and assumptions will differ from actual use.
- Actual consumer energy consumption and/or water usage will differ to the regulatory test conditions that we base our estimates due to variables such as cycle choice, temperature selection, load size and soilage of dishes or clothes.
- Actual consumables usage and dosage patterns and servicing requirements will also differ to our assumptions and estimates.
- We account for an appliance's assumed 20-year lifetime from the year it is sold, assuming a constant emissions factor for all 20 years. Over time, it's expected that the emissions factor will change as the carbon intensity of electricity grids change.
- Electricity emissions factors are typically average for a country or region and a calendar year. The actual emissions for an electricity source will vary depending on the location, season, time of day and energy source.

5 LIMITATIONS OF FORWARD-LOOKING STATEMENTS

Any forward-looking statements reflect our future intentions and expectations as at date of publication. These statements are not guarantees of future outcomes and are subject to risks and uncertainties which may result in outcomes being different from those stated in this Carbon Impact Report.

We have relied on guidance, data or other information from third parties in forming our strategy which is also subject to risks and uncertainties and may change.

This Carbon Impact Report is prepared in good faith and with the best of our current knowledge to date, however we reserve the right to change our approach in the future.

6 EXPLAINER OF CHANGES IN PER-APPLIANCE SOLD DIAGRAM

i. Calculating changes in per-appliance-sold carbon emissions between reporting times

The calculation of how much each appliance category contributes to the total change in per-appliance-sold carbon emissions between two reporting periods takes into account:

1. Change in the carbon emissions of the category

2. Change in total sales and in sales share of the category

Changes typically occur in both of the above factors and these factors interact. For example, if the sales share of a category increases, the overall per-appliance-sold carbon emissions will increase if the carbon emissions intensity of that category is higher than the sales-weighted average of the rest of the categories. Conversely, it will reduce if the category's carbon emissions intensity is lower than the sales weighted average of the rest of the categories.

Method of calculating the change in per-appliance-sold carbon emissions due to changes in each individual category:

Known values:

E_{tot_t1} = Carbon emissions of all categories at time 1 / Sales of all categories at time 1

E_{tot_t2} = Carbon emissions of all categories at time 2 / Sales of all categories at time 2

and for each category:

E_{cat_t1} = Carbon emissions of category at time 1 / Sales of all categories at time 1

E_{cat_t2} = Carbon emissions of category at time 2 / Sales of all categories at time 2

$S\%_{cat\_t1}$ = Sales of category at time 1 / Sales of all categories at time 1

$S\%_{cat\_t2}$ = Sales of category at time 2 / Sales of all categories at time 2

For each appliance category, we estimate what the overall per-appliance-sold carbon emissions would have been at time t2 if only that category had changed, adjusting the contribution of the remaining categories based on the impact of their proportion of sales.
This is calculated as:

$$E_{tot\_t2\_cat} = E_{cat\_t2} + (1- S\%_{cat\_t2}) / (1- S\%_{cat\_t1}) * (E_{tot\_t1} - E_{cat\_t1})$$

A category's contribution to the total change is the difference between the original per-appliance-sold carbon emissions and the value above:

$$E_{tot\_t1} - E_{tot\_t2\_cat}$$

Summing the contributions to total change across all categories gives:

$$\sum(E_{tot\_t1} - E_{tot\_t2\_cat})$$

This total can be compared with the actual overall change in per-appliance-sold carbon emissions between t_1 and t_2. Which is:

$$E_{tot\_t1} - E_{tot\_t2}$$

Because the summed contributions are based on isolated scenarios (changing one category at a time), they may not exactly match the actual overall change. To compensate for this, we calculate a scaling ratio that adjusts all categories so their total aligns with the observed change. The ratio of the summed contributions to the actual total change is:

$$\sum(E_{tot\_t1} - E_{tot\_t2\_cat}) / (E_{tot\_t1} - E_{tot\_t2})$$

Each category's contribution is then scaled by this ratio. Therefore results should be interpreted as adjusted indicators of category contributions.

$$(E_{tot\_t1} - E_{tot\_t2\_cat}) / (\sum(E_{tot\_t1} - E_{tot\_t2\_cat}) / E_{tot\_t1} - E_{tot\_t2})$$

The value above, for each category, is used when plotting the category's contribution in the graph.

ii. Table definitions

a. Share of 2024 Emissions:

This shows how much each category contributes to our carbon emissions in 2024. For example, fabric care makes up the largest share, meaning it's the biggest contributor to our emissions

b. Category average per-appliance-sold carbon emissions:

This metric is calculated by dividing a category's total emissions by the number of appliances sold in that category. It shows carbon emissions per-appliance-sold within that category. For example, air conditioners have a higher per-appliance-sold carbon emissions than fabric care.

c. Change in category average per-appliance-sold carbon emissions from 2020 baseline

This shows how the average carbon emissions per-appliance-sold has changed between 2020 and 2024 within each category. For example, the average fabric care appliance's per-appliance-sold carbon emissions reduced 22% between 2020 and 2024.

TOTAL CARBON EMISSIONS REPORTING TABLE
2020 – 2024

		tCO_2e	2020	2021	2022	2023	2024	CHANGE FROM 2020 TO 2024
SCOPE 1	DIRECT FUELS & ENERGY	PER-APPLIANCE SOLD	0.0	0.0	0.0	0.0	0.0	-14%
		TOTAL EMISSIONS	6,712	6,920	7,333	6,393	6,370	-5%
SCOPE 2	PURCHASED ELECTRICITY	PER-APPLIANCE SOLD	0.0	0.0	0.0	0.0	0.0	–26%
		TOTAL EMISSIONS	21,770	22,410	22,504	20,288	17,827	-18%
SCOPE 3	CATEGORY 1 PURCHASED GOODS & SERVICES	PER-APPLIANCE SOLD	0.5	0.5	0.5	0.5	0.5	7%
		TOTAL EMISSIONS	682,895	762,822	789,051	681,403	807,137	18%
	CATEGORY 11 USE OF SOLD PRODUCTS	PER-APPLIANCE SOLD	5.0	4.4	4.2	4.2	3.8	–24%
		TOTAL EMISSIONS	6,828,252	6,410,096	6,226,881	5,602,362	5,717,619	–16%
	OTHER CATEGORIES	PER-APPLIANCE SOLD	0.1	0.1	0.1	0.1	0.1	-3%
		TOTAL EMISSIONS	116,542	102,039	141,023	109,753	133,129	14%
	TOTAL	PER-APPLIANCE SOLD	5.6	5.0	4.9	4.8	4.5	–21%
		TOTAL EMISSIONS	7,656,171	7,304,287	7,186,792	6,420,199	6,682,082	–13%

ENDNOTES

[1] Josh Gabbatiss, “Record clean-power growth in 2023 to spark ‘new era’ of fossil fuel decline,” World Economic Forum, Apr 17, 2023, https://www.weforum.org/agenda/2023/04/record-clean-power-growth-in-2023-to-spark-new-era-of-fossil-fuel-decline

[2] Gabbatiss, “Record clean-power growth”.

[3] CDP Technical Note: Relevance of Scope 3 Categories by Sector, revised versions, 28 Jun, 2024, p.6, https://cdn.cdp.net/cdp-production/cms/guidance_docs/pdfs/000/003/504/original/CDP-technical-note-scope-3-relevance-by-sector.pdf

[4] National Oceanic and Atmospheric Administration (NOAA), “Climate Change: Atmospheric Carbon Dioxide”, 12 May, 2023, https://www.climate.gov/news-features/understanding-climate/climate-change-atmospheric-carbon-dioxide

[5] UN, "For a liveable climate: Net-zero commitments must be backed by credible action", accessed 17 October, 2025, https://www.un.org/en/climatechange/net-zero-coalition Why is net zero important,reach net zero by 2050.

[6] IPCC, “Climate change widespread, rapid, and intensifying”, 9 August, 2021, https://www.ipcc.ch/2021/08/09/ar6-wg1-20210809-pr/

[7] Economist Impact, accessed 3 November 2025 “No business decarbonisation without supply-chain buy-in”, https://impact.economist.com/sustainability/net-zero-and-energy/no-business-decarbonisation-without-supply-chain-buy-in

[8] Ministry of Business, Innovation and Employment, 17 August, 2023, “Energy in New Zealand 2023 shows renewable electricity generation increased to 88%”, https://www.mbie.govt.nz/assets/energy-in-nz-2024.pdf

[9] Ember, “Tracking national ambition towards a global tripling of renewables”, accessed 29 Nov, 2023, https://ember-climate.org/insights/research/tracking-national-ambition-towards-a-global-tripling-of-renewables

[10] Architecture 2030, “Why the Built Environment?”, accessed 1 November, 2025, https://www.architecture2030.org/why-the-built-environment

[11] IEA, “Solar PV and wind supply about 40% of building electricity use by 2030”, September 2022, https://www.iea.org/reports/solar-pv-and-wind-supply-about-40-of-building-electricity-use-by-2030

[12] ACT Government, "Preventing new gas network connections", accessed 23 October 2025, https://www.climatechoices.act.gov.au/energy/canberras-electrification-pathway/preventing-new-gas-network-connections

[13] Dr Sam Brooks and Professor Rajkumar Roy, “Fridge 2050”, p.4, https://www.city.ac.uk/__data/assets/pdf_file/0006/674709/Fridge-2050-The-Future-of-Large-Domestic-Appliances.pdf

[14] Carbon grid intensity or grid emission factor: refers to the CO_2 emission factor (tCO_2/MWh) associated with each unit of electricity provided by an electricity system.

[15] Our in-use energy carbon emissions estimates are calculated as follows. Energy Consumption Data (kWh) × Emissions Factor ($kgCO_2e/kWh$) = In-Use Energy Carbon Emissions Estimate ($kgCO_2e$). The energy consumption data is set out on the product’s energy label, stating how much energy a product uses during operation in specific testing conditions. Energy labels are only available for some products in some markets and will differ from real use scenarios. We use the International Energy Agency (IEA)’s emission factors to calculate the $kgCO_2e/kWh$. These are typically averaged over a year at a country level and will differ from real use scenarios.

[16] IEA, “Electricity”, accessed 17 October 2025, https://www.iea.org/reports/global-energy-review-2025/electricity

[17] Based on tracking by Naylor Love

[18] Based on electricity consumption data for our Thailand factory in 2020 and 2024. Electricity data sourced from invoices. The carbon emissions factor used for Thailand grid electricity is Thailand (CO_2kWh ELE + trade adjustment + CH_4 factor + N_2O factor), IEA (2024), Emission Factors. Per-appliance-sold savings is estimated using appliance sales in 2024.

[19] See Most Efficient Specification on Energy Star website for RS3684W* Ice & Water Model https://www.energystar.gov/productfinder/product/certified-residential-refrigerators/details/3619541

[20] From the Canadian Energy Label. https://www.fisherpaykel.com/on/demandware.static/-/Sites-fpa-master-catalog/default/dwb466bf0b/GeneralFiles-FisherPaykelUS/FP-EnergyLabel-en-fr-RS-3684WRUVE1-RS3684WLUVE1-IntegratedRefrigerator-Freezer-IceAndWater-432486A-US-CA.pdf

[21] The closest energy related model in its class is the 'Uses least energy' model on the Canadian EnerGuide label for RS3684, using 504 kWh per year.
The least efficient model in its class is the 'Uses most energy' model on the Canadian EnerGuide label for RS3684, using 604 kWh per year.
Annual in-use carbon emissions were estimated by multiplying the kWh of all models on the Canadian Energy label by the Canada emissions factor, Canada (CO_2kWh ELE + trade adjustment + CH_4 factor + N_2O factor), IEA (2024), Emission Factors.

[22] UNFCC, "Food loss and waste account for 8-10% of annual greenhouse gas emissions; cost USD 1 trillion annually," accessed 23 October, 2025, https://unfccc.int/news/food-loss-and-waste-account-for-8-10-of-annual-global-greenhouse-gas-emissions-cost-usd-1-trillion

[23] Tested in accordance with in-house performance methods using IEC sensors. Appliances were tested with no food load in a 22°C ambient environment. Appliance doors were closed for the duration of the test.

[24] Rewiring America, "Why induction stoves are better than gas," accessed 23 October, 2025, https://homes.rewiringamerica.org/articles/induction/induction-stoves-vs-gas-stoves]

[25] RIBA (UK), NZ Institute of Architects, Australian Institute of Architects, American Institute of Architects.

[26] Department of Climate Change, Energy, the Environment and Water, Australia. "Hot water systems", accessed 3 November 2025. https://www.energy.gov.au/households/hot-water-systems

[27] Energy savings of 64-68% are based on Haier Split System 280L when compared to a standard resistive electric storage water heater in Zones 1 to 5 in AS/NZS4234.

[28] Based on modelling completed by the Lever Room. https://static1.squarespace.com/static/66cba723e583da5fc200ff00/t/680ff0ee705c8635d030b7d6/1745875

[29] Based on internal energy monitoring. The system includes Fronius Primo 6.0 GEN24 Single Phase inverter with a maximum AC output of 6 kilowatts. The solar array includes 16 x Longi LR5-54HTB-430M panels with a nominal DC power of 6.88 kW.

[30] Based on internal energy modelling. The system includes Fronius Primo 6.0 GEN24 PLUS Single Phase inverter with a maximum AC output of 6 kilowatts. The solar array includes 16 x Dasolar DAS-DH108ND 445W panels with a nominal DC power of 7.12 kW. The BYD Energy HVS 2.56 battery storage system has a usable storage capacity of 5.1 kWh.

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