October 2025

Products insights report - summary

Regulated commercial product insights

EECA
TE TARI TIAKI PŪNGAO
ENERGY EFFICIENCY & CONSERVATION AUTHORITY

Executive summary

This report summarises the key insights from the EECA (Energy Efficiency and Conservation Authority) Commercial Products Insights Report 2025. The full report provides in-depth data and insights on the suite of commercial products that EECA regulates and is available on the EECA website.

Since 2002, EECA has been responsible for regulating the energy performance of certain key commercial and residential products. Every year, we collect sales data for these regulated products, which we combine with product performance data to understand the benefits of the regulations and to spot market trends.

Over the years, sales of regulated products have changed dramatically, as have their energy performance properties. New products have been added to the list of regulated items, and in some cases, the regulatory tools have been updated.

In early 2025, EECA commissioned two reports to look at the data we have collected over time: one for commercial and one for residential regulated products. We wanted to provide insights into how energy efficiency technology and market trends are changing – information that can help both consumers and product suppliers.

The products

This report looks at the most common categories of regulated commercial products, both in terms of how many are sold overall and the variety of makes and models available. These include:

- air conditioners and heat pumps between 20kW and 65kW (see the Residential Products Insights Report 2025 and its associated summary for smaller systems)
- refrigerated cabinets
- three-phase electric motors

Other products, such as distribution transformers, building chillers and computer-room chillers, were not included in our analysis as their sale volumes are very low and sporadic, and there are not the same range of consumer choices for them as other products. Also, due to their low sales volumes from a relatively limited pool of product suppliers, the data for these products may be considered too granular to be published.

Note that throughout this report, all analysis is based on a sales-weighted average – the figures are weighted by the number of different models of products sold, to take into account the popularity of models.

The regulatory regime

Under the Energy Efficiency (Energy Using Products) Regulations 2002 sales of certain products may be subject to energy performance requirements.

These include the **minimum energy performance standard** (known as MEPS), which some products are required to meet. Products that don't meet the standard, because they use too much energy or perform poorly, can't be sold any more. Over time, the standard has been raised for certain products – like fridges and heat pumps – as technology has improved. This has led to even more efficient products and greater energy savings for consumers.

Every year, businesses submit sales data for regulated products to EECA for the previous year. Data is submitted for the period from 1 April to 31 March in the following year (not the calendar year).

EECA takes the protection of sales data seriously, in line with its obligations under the Energy Efficiency and Conservation Act 2000. Data is provided to EECA in confidence, as it can be commercially sensitive, and is only published in a way that prevents identification of or potential commercial disadvantage for businesses.

Key insights for all products

- **Energy efficiency is improving.** Across all three product categories we analysed, energy efficiency is trending upward.
    - Air conditioning systems and refrigerated cabinets are using less energy than they used to.
    - Businesses are buying more energy efficient three-phase electric motors. There was a clear shift from standard motors to IE2 (high efficiency) and then IE3 (premium efficiency) motors. However, progress has slowed over the last four years, with only 3% of the motors currently being sold having the higher IE4 super premium efficiency level.
- **There is an increasing number of brands and choices.** Across all product categories, there has been strong growth in the range of companies, brands and models available in New Zealand, giving consumers a much wider range of options to choose from.
- **Where products are made is changing.** With the exception of air conditioning systems, there has been a clear shift towards products being manufactured in China. China has consistently been the leading source of three-phase electric motors sold in New Zealand, supplying between 20% to 45% of the market over time. For refrigerated cabinets, Chinese-made models have steadily increased in market share over the past 15 years and now make up the overwhelming majority of sales.
- **Sales patterns are not driven by economic conditions.** Sales trends for three-phase electric motors remained relatively flat from 2010 to 2024. By contrast, sales of air conditioning systems grew sevenfold between 2016 and 2024. This suggests that factors other than economic conditions are driving demand.

Key insights by product

Air conditioners/heat pumps

Many air conditioners can operate in 'reverse-cycle' mode to deliver both cooling and heating.

- **Rapid rise in multi-split systems.** Sales of multi-split air conditioning systems have grown sixfold since 2016 and account for 57% of all commercial sales. Variable refrigerant flow (VRF) systems have also grown at a similar rate, though from a smaller base, and now make up 37% of the market. Sales of packaged systems have remained flat for the past 15 years, with just a few hundred units sold annually.

- **Trends in heating capacity vary by system type.** Over the past 10 years, the heating capacities of commercial air conditioning systems have followed different patterns, depending on the system type:

    - the average capacities of multi-split systems have remained consistent

    - VRF systems have shown capacity fluctuations over time, with no clear trend

    - packaged systems have seen a recent increase in average capacity, from around 20kW between 2018 and 2020, up to 31kW in 2024. This may reflect the smaller sales volume for this type of system, where a few large commercial projects can shift the overall average.

- **Move to lower-impact refrigerants led by smaller systems.** There is a strong shift toward lower global warming potential (GWP) and low ozone depleting refrigerants being used in air conditioners. In 2024, 71% of commercial systems sold used R32, while sales of systems using the higher GWP refrigerant R410A fell to 29%. This shift has been driven by multi-split systems and smaller commercial systems, which make up the largest portion of sales. R410A was still widely used as a refrigerant in 2021 and 2022, so the shift has been relatively recent.

- **High, and improving, energy efficiency.** The energy efficiency of commercial air conditioning systems has steadily improved over the past decade. The average coefficient of performance (COP) for multi-split systems has increased by 16% to 4.7. For VRF systems, the COP has increased by 11% to 4.37. COP is a measure of the efficiency of an air conditioning system, indicating how much useful heating or cooling output the system generates for a given amount of energy input.

- **Multi-split systems are the most efficient.** When it comes to heating , multi-split systems have the highest COP, followed by VRF systems, with packaged systems being the least efficient. The same ranking applies to cooling performance, measured by the energy efficiency ratio. This is probably because smaller systems tend to be more efficient, and multi-split systems are typically smaller than VRF and packaged units.

- **More brands and models available.** There's now much more choice in the commercial air conditioning market. The number of models available in New Zealand has grown significantly – from just 33 in 2011 to 228 in 2024. This gives buyers a much wider range of options in terms of performance, efficiency and system types.

Refrigerated cabinets

Refrigerated cabinets cover 15 different product classes, with the classes based on cabinet use, temperature, shape and configuration. These classes can largely be grouped into refrigerated display cabinets (for which MEPS requirements were introduced in 2004 and revised in 2021) and refrigerated service cabinets (for which MEPS requirements were introduced in 2021).

- **Strong growth in integral chiller and freezer cabinet sales.** Sales of chiller (or refrigerated) and freezer cabinets with built-in (integral) compressors have grown significantly over the past six years. Sales of integral chillers are up 93%, while integral freezer cabinets have increased by 250%.
- **Remote units less popular as integral cabinets dominate.** Refrigerated and freezer cabinets with integrated compressors are far more popular than those with remote compressors. In fact, they outsell them by about 20 to 1. While integral cabinet sales are growing strongly, sales of remote units have remained flat or are declining.
- **Energy efficiency is steadily improving.** Refrigerated and freezer cabinets are becoming more energy efficient. Over the past 12 years, energy use – measured in kilowatt hours per day per square metre of display area – has dropped by half for both refrigerators and freezers.
- **Storage volume mostly unchanged.** Over the past four years, the storage capacity of most refrigerated cabinets remained relatively stable. The exception is horizontal freezer service cabinets, where there has been an average 32% drop in storage capacity.
- **Display area increasing for remote units.** The total display area of remote compressor refrigerator and freezer cabinets has increased steadily in recent years. These units now offer about five times the display area of comparable integral compressor models, which are declining in total display area.
- **Shift toward Chinese manufacturing.** Over the past 15 years, the share of refrigerated cabinet products sourced from China has grown significantly and now makes up the overwhelming majority of total sales in New Zealand. This is compared to New Zealand-made products, which once held around half of the market, but whose share is declining.
- **More brands and models available.** There has been a sharp increase in the variety of refrigerated cabinets available in the market. Over the past eight years, the number of brands has grown by 80%, and the number of models has increased by 200%.

Three-phase electric motors

- **Sales of three-phase electric motors remain steady.** Sales of three-phase electric motors have stayed relatively stable over the past 15 years, ranging between of 20,000 to 25,000 units per year.
- **Motor sizes remain consistent.** The average size of three-phase electric motors sold in New Zealand has remained fairly steady over the past 15 years, typically ranging between 6kW and 7kW. There is no clear trend towards either larger or smaller motors.
- **Shift towards more efficient motors.** Over the past 15 years, there has been a clear trend towards more energy-efficient three-phase electric motors. The market first shifted towards IE2 (high efficiency) motors from less efficient motors, followed by a move from IE2 to IE3 (premium efficiency) motors. From 2016, IE4 (super premium efficiency) motors have appeared in the sales data and now make up 3% of total sales.
- **Efficiency gains vary by motor size.** The energy efficiency of three-phase electric motors has improved over the past 15 years, increasing by 2 and 5 percentage points, depending on the motor size and pole count. This improvement is largely due to the market shifting towards more efficient motor classes. Smaller motors have made the largest gains over time, but larger motors are still more energy efficient. For example, in 2024:
    - a 4-pole motor sized between 0.73kW and 4kW had an average efficiency of 84.7%
    - a 4-pole motor sized between 150kW and 185kW had an average efficiency of 96.3%.
- **China remains the leading manufacturer.** China has consistently been the main supplier of three-phase electric motors to New Zealand over the past 15 years. Since 2012, Chinese-made motors have accounted for between 35% to 45% of annual sales.
- **Much more choices available.** The number of models of three-phase electric motors on the market has increased dramatically – growing 52-fold since 2000. This gives buyers a far greater range of options in terms of size, efficiency and performance.
- **Wide range of models per brand and company.** On average, there are now 20 different models available per brand of motor and 26 per company. This reflects a wide range of motor sizes and other variations, such as the number of poles.

About this analysis

Our analysis also looked at outside macro-economic and market factors that might influence how consumers choose and buy products, including:

- economic growth
- Covid-19 pandemic effects
- cost of living, inflation and interest rates
- housing construction market
- demographic and lifestyle changes
- population growth and net migration.

For more information

To find out more, see the full version of the Commercial Products Insights Report 2025.

There is also an equivalent Residential Products Insights Report 2025, providing data and insights on the commercial products that EECA regulates.

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