

Commercial building use

The image of commercial buildings is usually large multi-level office blocks, but they are diverse with different energy and water uses.

NEW ZEALAND'S COMMERCIAL building stock includes multi-level office blocks but also has many buildings less than 3,500 m² and even some large non-residential, commercial buildings that are only one or two levels high.

Moreover, a recent survey of non-residential building premises found that, while most were in some sort of tenancy arrangement, almost 13% were owner-occupiers.

This suggests that initiatives to optimise energy and water use in New Zealand's commercial building stock will need to consider the diversity of the building stock.

Management and occupancy are important

The different ways these buildings are occupied, managed and supplied with energy and water should also be considered. Recently, the BRANZ Building Energy End-use Study (BEES) released a report summarising findings from the 791 premises.

The majority of premises employ managerial, professional or clerical and administrative workers. Over two-fifths of premises report that they employ sales workers. About one-fifth of premises have technicians or trade workers working on site. Most premises have employees on site for 9-12 hours on weekdays, but 10% have one or more employees on site for more than 21 hours on a single weekday.

Table 1

ENERGY PAYMENTS PATTERN FOR PREMISES IN STUDY

ENERGY PAYMENT	PREMISES	% OF PREMISES
Paid to suppliers	558	70.5
Itemised in lease or rent	94	11.9
Non-itemised in lease or rent	56	7.1
Mixed payment	22	2.8
Unknown or not specified	61	7.7
Total	791	100.0

Refits not improving energy efficiency

Just under two-thirds (62.2%) of the businesses have undertaken some sort of refit of the space within their current building. The vast majority of reported refits are cosmetic with little evidence of energy or water efficiency improvements, despite the majority of premises paying directly for energy rather than through their rent (see Table 1) and, therefore, being exposed directly to energy costs.

Unlike energy costs, most premises are not directly exposed to water costs. Water use is only directly billed in a small number of premises.

The primary energy source of these businesses is reticulated electricity. Almost all premises (99.4%) report consuming reticulated electricity, with significantly fewer businesses consuming natural gas (13.1%) or diesel fuel (2.8%). ◀

Smaller and larger

The survey data suggests a different profile of management and use for smaller and larger buildings.

Smaller buildings:

- are more likely to be directly impacted by energy price signalling
- should be designed for energy efficiency because occupancy tends to be longer and the propensity to refit is low
- are either unmanaged or managed by owner-occupiers, tenants or landlords with little awareness of or interest in resource efficiency.

Larger buildings:

- are more likely to include energy costs within rents and have large numbers of tenants who do not have to deal directly with energy costs
- are more likely to be managed by professional property managers
- have tenant turnover that is associated with refit that currently tends to be cosmetic but offers opportunities to improve energy efficiency
- have limited potential to manage the complex practices of resource use because of the multiplicity of tenants, fragmented lease arrangements and the tendency for electricity supply to be purchased by tenants
- are more likely to have professional or dedicated building/facilities management. ◀