

Energy metering in office buildings



Does your building run like a well-oiled machine or is it chewing through more energy than it should? A NABERSNZ™ energy rating can tell you – but the first step may need to be metering.

A NABERSNZ rating is

- Simple and low-cost
- Clear view of energy performance
- Gives a rating from one to six stars
- The more energy efficient the site

Why is accurate metering important?

Some buildings in New Zealand can't start the NABERSNZ journey without first improving energy metering. Incorrect energy metering can affect both landlord and tenant:



Tenants

Ensuring that base building systems and tenant distribution boards are wired separately will ensure that tenants are only billed for their own energy consumption.



Owners

Accurately tracking energy use makes it easier for owners to improve building comfort and efficiency in response to tenant requirements.

Separating owner and tenant energy

To get a NABERSNZ rating for a base building or tenancy, you need meters that separate tenant and landlord energy use. Unfortunately, many New Zealand building services have not been designed in line with good metering practice – so it's not possible to get a clear view of how much energy is used, where.

Fixing the problem with the right energy meters, is a job that needs to be done only once. And once in place, your energy meters will continue to provide invaluable information to help make sure your building is running well for maximum comfort and lower cost.

How can I tell if my metering is right?

The first step is to ask a professional to look at your meters. The New Zealand Green Building Council offers a free pre-NABERSNZ review service. This is a high-level review of your current arrangements that will give you a simple indication of whether your metering is adequate, and what your next options could be.






A NABERSNZ Assessor can also review your metering, and advise you how to correct it.

You can find a list of Assessors at nabersnz.govt.nz













Good practice metering

By making sure your metering separates tenant and landlord energy use, you can get a clear view of actual performance. It also means you can start to get NABERSNZ ratings for base building and tenancies – the first step in measuring and improving energy efficiency.

Tenant loads

-  Tenant-installed signage within or on the building.
-  Power and lighting to Tenancy rentable area.
-  Power and lighting to service areas assigned to a single tenant.
-  Tenant-controlled supplementary air conditioning to meet a special tenant requirement.
-  Generator fuel for tenant.

Base building loads

-  Car park ventilation and lighting, where internal or external car parks are provided for tenant use.
-  Base building HVAC to meet normal office requirements such as fan coil units.
-  Lighting and power in common-area (e.g. foyer, plantroom, service areas assigned to more than one tenant).
-  Toilet exhaust fan.
-  Central plant such as chiller, boiler, AHU.
-  Lifts and escalators.
-  Centralised supplementary services provided for tenants. i.e. condenser water loop.
-  Exterior lighting.
-  Exterior signage provided by the building owner for the benefit of office tenants.
-  Systems linked to the BMS used to control internal temperature. e.g. automatic blinds, natural ventilation actuators.
-  HVAC system that are supplied for no special tenant requirement.
-  Generator fuel where it serves central services.

Will re-metering be a costly job?

Sorting out energy metering in office buildings doesn't necessarily need to be a large or expensive job. In some buildings, installing several sub-meters is enough to fix the issue.

Once you're aware of how your metering is set up and whether it needs correcting, it pays to get quotes from several suppliers, as there may be several different options to get the result you want.

Even if you have a large building and the capital outlay for improved metering is significant, it's likely to be worth the investment.

With correct metering you can start to track performance, improve comfort and efficiency - and have a better story for clients, investors and staff.

How do I get started?

Find out more, use the calculators, or get in touch with an Assessor at

www.nabersnz.govt.nz



For more information:

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(ask for the NABERSNZ team)