

# How we're helping EECA become even more energy efficient

## summary

### Challenge

Enhancing the energy efficiency of EECA's<sup>1</sup> already impressive 5-star NABERSNZ<sup>2</sup> tenancy-rated Head Office in Wellington by addressing the historically difficult-to-control area of plug load.

### Solution

Integrating our Site **iQ** energy management and buildings analytics solution to help EECA manage the energy consumption of various devices plugged into outlets across the two floors it occupies.

### Impact

Reduction in average  
weekly plug load

**35%-39%**  
(~7,000 kWh per year)

Reduction in total  
electricity consumption

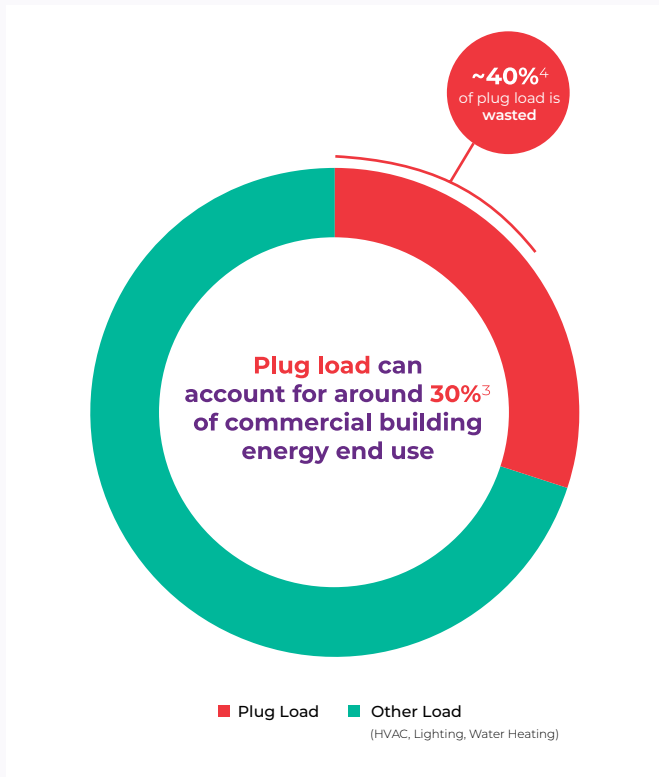
**5%-6%**  
(per year)

<sup>1</sup>New Zealand's Energy Efficiency & Conservation Authority.

<sup>2</sup>NABERSNZ is an independent tool backed by the New Zealand government that rates the energy efficiency of office buildings. A 5-star rating is considered 'excellent performance'.

## Managing plug load unlocks the potential for greater energy efficiency

Plug loads can play a significant role in building energy consumption, depending on the business type, size, and level of energy efficiency<sup>3</sup>. Around 40% of plug load is wasted from devices left plugged in and drawing power when not in use.



<sup>3</sup>BRANZ: Building Energy End-use Study, BEES Final Report, Fig 63, P51

<sup>4</sup>Science Direct: Hybrid Plug Load Energy Management Solution

## Challenge

EECA was already taking steps to reduce its energy use and greenhouse gas emissions when we approached them with an opportunity to improve the efficiency of its 5-star NABERSNZ tenancy-rated Head Office in Wellington. However, it lacked a solution to manage 'plug load', which refers to the energy consumed by devices plugged into electrical outlets, such as computers, printers, meeting room equipment and kitchen appliances.

**Plug load has historically been difficult to manage because it consists of a large number of energy-consuming devices controlled by individual users.**

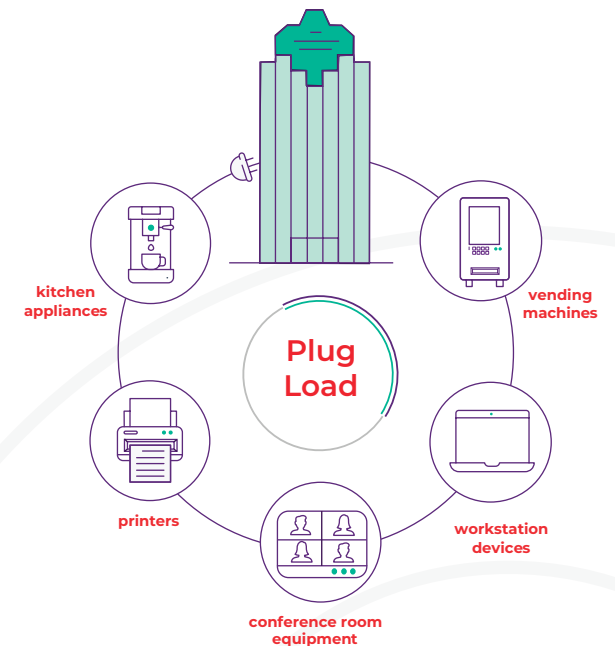
Additionally, many devices are left plugged in and drawing power even when not in use, resulting in wasted energy consumption, also known as standby power.

## Solution

We collaborated with EECA to integrate our Site iQ energy management and building analytics solution across the two floors of the 12-storey office complex it occupies.

Using controllable smart plugs, Site iQ collects real-time data from EECA's connected devices, which is then fed into an online analytics platform, providing insights into how equipment is being used and recommendations for improving efficiency and workspace utilisation.

Through an easy-to-use dashboard, EECA is now able to identify areas for improvement and set energy-saving controls, such as automatically switching off equipment when not in use and removing high energy-consuming equipment.



## case study

### Impact

After an initial baselining period, Site **iQ** now provides EECA visibility over how its office space is being utilised. Insights into plug load consumption are provided for various areas of the office, including desks, kitchens, and meeting rooms.

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**Site iQ is helping EECA reduce its average weekly plug load by between 35%-39%<sup>5</sup> (~7,000 kWh per year), reducing total electricity consumption by 5%-6%.**

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Most of these savings are from turning devices off after hours in conference rooms and in the kitchens and making a collective decision to remove the hungriest appliance of them all, its vending machine.

EECA also discovered that the recent increase in remote working left many desks powered up whilst unoccupied for several days of the week.

To save energy, employees now flick the control switch on the smart plug when they arrive in the office, and the plugs automatically power down at the end of the day until they're needed again.

Site **iQ** has taken its place alongside EECA's other efficiency measures, such as motion sensors and LED lighting, to provide insights into where power is being used in its offices and enable the Authority to make even greater electricity and emissions savings.

<sup>5</sup>Against a one-month baselining period during normal occupancy.

## Want to create more energy and space-efficient workspaces?

SiteiQ can help by providing visibility into how your plug-connected devices are being used, allowing you to reduce energy consumption and emissions, decide how much floorspace you need and how best to configure it.

**Let's talk** Give us a call on 0800 100 249, or email [solutions@simplyenergy.co.nz](mailto:solutions@simplyenergy.co.nz)