

Novotel Ellerslie – it doesn't take a big investment to make better use of energy

A programme of energy audits for tourism operators identified annual cost savings averaging 15% – and many of the measures could be implemented for little or no cost. The modern Novotel Auckland Ellerslie already had energy saving initiatives, but its audit showed it could save even more – without costly investment.

A decade of hospitality

Novotel Auckland Ellerslie is a premier four star hotel with 144 rooms catering to a mix of business and leisure. Built in 2000, it adjoins the three star Ibis, with which it works closely particularly for larger scale conferences. Both are part of the worldwide Accor Group which operates more than 4,000 properties in nearly 100 countries.

An energy-conscious sector

Tourism is a \$59 million a day business contributing close to 10% of New Zealand's GDP. It's also a big consumer of energy, accounting for 23 petajoules (PJ) per year.

New Zealand's environment is a key selling point for tourism. Protecting brand value by demonstrating good environmental credentials is an important focus.

At the same time, room rates are under intense pressure. Tourism from Australia remains reasonably buoyant, but visits from other destinations are down.

Reacting to these dual pressures, tourism is one of the most active sectors when it comes to managing energy. Adding to a range of other initiatives, the Tourism Industry Association (TIA) worked with EECA to introduce the Tourism Energy Efficiency Programme (TEEP) in 2008.

Under the scheme, businesses were mentored through a detailed energy audit and the subsequent improvements.

Under the energy microscope

A leader in environmental responsibility, the international Accor Hospitality Group has won awards for its 'Earth Guest' sustainability programme. Every New Zealand Novotel has Green Globe silver certification.

Accor volunteered Novotel Ellerslie to be the first hotel to go through the TEEP programme.

All energy consuming devices were identified and loadings recorded. Information was collated into a spreadsheet that showed where energy was being consumed, the running costs of devices, and savings opportunities.

The property was built in 2000, so had a range of efficient technologies including modern HVAC systems and advanced insulation. It's also actively managing energy efficiency, under Regional Technical Manager John Meggitt.

Even so, the TEEP auditors found a dozen steps the business could take that would cut its annual energy bills by over \$20,000.

\$10,000 or under initiatives

The opportunities identified could all be achieved either through low cost 'housekeeping' changes or minimal capital investment (\$10,000 or less).

The ideas included installing sensors to switch off lights in areas not being used, and replacing incandescent lamps with efficient compact fluorescent lamps (CFLs). The most expensive item on the list was an automatic power factor correction unit, (around \$9,300).

One of the steps involved fitting hot water flow regulators in showers and basins, a move that would also generate additional savings of \$30,000 in water usage. These savings are so significant, Accor has applied it to all its NZ hotels.



The Novotel Ellerslie, built in 2000, caters for business and leisure clientele.

✓ Key features

- Hotel-wide energy audit under joint EECA / TIA programme
- Total project cost \$22,814
- Simple payback 1.12 years

✓ Key benefits

- Potential energy reduction of 283,908 kWh p a (7.6% of total consumption)
- Savings of \$20,375 p a (6.6% of total cost)
- Further \$30,000 annual saving in water costs
- Reduction in CO₂ emissions: 63.21 t/yr
- Reduce energy consumption per room night from 51.72kWh to 47.82 kWh
- Reduce energy cost per room night from \$4.38 to \$4.09
- Other Tourism Energy Efficiency Programme-audited businesses report average cost savings of 15%

✓ Sector applicability

- Tourism & hospitality businesses
- Commercial buildings



Improvements	Annual Savings	Payback
Replace two fluoros with one in staff hallway lights	\$124	immediate
Swap magnetic light ballasts with electronics in stairwell lights	\$162	–
Replace two fluoros with one in staff canteen lights	\$247	immediate
Fitting boiler covers correctly	\$801	immediate
Sensor light in guest laundry	\$188	1.4 years
Sensor lights in restaurant/bar toilets	\$358	2.3 years
Sensor lights in conference area toilet	\$650	2.3 years
Insulate APV plate heat exchangers	\$688	2.9 years
Install card switch on health club lights	\$1,134	2 months
Install power factor correction unit	\$1,818	5.1 years
Replace common area incandescent lights with CFLs and remove dimmers (where it made sense)	\$5,582	3 months
Flow restriction devices on guest showers	\$8,623 (plus \$29,812 water savings)	2 months

Whole sector can benefit

The Novotel's results are positive, but the opportunities in such a modern facility were limited. The broader picture is even more encouraging. In total, 25 businesses have been mentored through TEEP. These companies' savings averaged 15% of their annual energy bill. Around 60% of improvements had payback of within a year.

The financial benefits make energy efficiency worthwhile, especially with rates under pressure. Equally significant is that such initiatives strengthen the consumer proposition of New Zealand tourism – respect for the environment.

Key personnel

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Paul Richardson, VP New Zealand and Fiji, Accor Hospitality:

“The audit showed us that even in a business with a strong energy focus there are lots of quick and easy ways to manage energy better. Installing motion sensors for lighting and finding better ways to use hot water were low cost but paid themselves off in just over a year. It's always worth looking at energy no matter how big or small you are – or how focused on energy management. Our company-wide approach to energy is making a big difference to our business, our customers and our reputation.”



Tim Cossar, TIA Chief Executive:

“The New Zealand tourism industry is taking a lead in protecting and enhancing the environment. Energy is a significant cost, ranking alongside rates, insurance and rentals. The difference with energy is that, with good management, costs can be controlled and reduced.

“TEEP shows that good energy management not only reduces energy consumption and CO2 emissions, it saves significant money and can give a marketing edge over competitors.”

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