

## TEEP Case Study – Fullers Group Ltd

**A TEEP energy audit has revealed that Fullers Group Ltd could cut more than \$250,000 off its annual energy bill (the equivalent of 7%) by introducing simple energy savings initiatives. The cost of the initiatives was \$100,000 - \$150,000, which would deliver payback on their investment in less than one year.**

Fullers has been the leading ferry operator in Auckland for over 20 years and offers a range of ferry trips, tours and charters around Auckland Harbour and the islands of the Hauraki Gulf.

Leisure trips include the historic seaside suburb of Devonport, the volcanic Rangitoto Island, Waiheke Island, vineyard tours and a harbour cruise. Seasonal ferries operate to Great Barrier Island and commuter ferry services operate between downtown Auckland and five North Shore destinations.



A TEEP energy audit was carried out on Fullers' operation, including five vessels. Fullers Group is a TIA member.

### Energy Use

Fuller's annual total energy consumption is 3,702,826 litres (39,167,671kWh) of diesel for vessels and 262,633kWh of electricity in the offices. This equates to around \$3,740,000 in energy expenditure per year. The TEEP energy audit identified that Fullers could achieve savings of \$268,054 a year by adopting a number of identified savings initiatives. Those savings equate to 7.2% of their total energy bill.

The audit found the operation's overall energy efficiency is fairly good given the constraints of maintaining a high speed ferry service with a fixed schedule.

### Cost Savings and Payback Time

#### Immediate payback

- Trial operating Superflyte at 25 knots  
Total cost:        \$0                      Annual cost savings        \$103,500
- Operate Quickcat at 15 knots for the first Auckland to Waiheke run of the day  
Total cost:        \$0                      Annual cost savings        \$28,600
- Turn off outdoor lighting on vessels during the day  
Total cost:        \$0                      Annual cost savings        \$1644
- Improve lighting control in the offices



Total cost:	\$0	Annual cost savings	\$346
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- Switch off the electronic whiteboard

Total cost	\$0	Annual cost savings	\$64
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### Two weeks payback

- Apply a foul release coating to the propellers

Total cost	\$1600	Annual cost savings	\$35,600
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### Less than six months payback

- Replace existing vessel lighting with more efficient lighting

Total cost	\$1890	Annual cost savings	\$6107
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- Use the latest anti-fouling system

Total cost	\$30,000	Annual cost savings	\$67,016
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### Less than 2.5 years payback

- Replace 50W halogen lamps in the offices with 15W compact fluorescent lamp down lights

Total cost	\$300	Annual cost savings	\$177
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- Replace antifouling system on Adventurer vessel

Total cost	\$65,000	Annual cost savings	\$25,000
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Fullers Group Ltd CEO Douglas Hudson says the company's participation in the TEEP energy audit is a reflection of its drive towards energy conservation and reducing its carbon footprint.

"We are pleased with the outcome of the audit and it is heartening to see evidence that our efforts are already making good progress.

"In terms of vessel fuel efficiency, the audit identified the design and condition of propellers as some of the most important factors. New propellers have recently been purchased for some of the vessels and their effect on performance will determine the decision whether to upgrade propellers on other vessels.

We are also already using antifouling systems with great results and recognise the opportunity to trial some of the upgraded, more advanced products,” says Mr Hudson.

“We are also carrying out other conservation initiatives including recycling bins on all vessels, more efficient usage of water and measures to calculate and reduce our carbon footprint.



“In terms of making savings associated with operating some vessels at a slower speed on the Waiheke Island service, we definitely support and have been implementing this recommendation, although it must be noted that this is not always feasible, as we are restricted by the constraints of operating a high speed service and fixed timetables, and ultimately the need to satisfy our customers.”

[www.fullers.co.nz](http://www.fullers.co.nz)