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ELECTRICITY EFFICIENCY MAKES DOLLARS AND SENSE

Several major South Island manufacturing companies have slashed their electricity costs and made a climate change statement, by adopting improvements to their compressed air systems.

Robert Norriss from Christchurch was recently confirmed as one of the country's first two Accredited Compressed Air System auditors, and is part of an initiative to cut electricity demand among larger compressed air users in the manufacturing, food and light engineering industries.

The chief executive of the Energy Management Association Mr Ewan Gebbie said the compressed air initiative would play a significant part in achieving energy savings of \$2 billion for the manufacturing sector within 5 to 10 years.

Compressors generate a lot of heat that in many cases cannot be easily harnessed. But CWF Hamilton, which makes the famous Hamilton jet boats in Christchurch, channels the heat into its paint spray booth to snatch back some of the costs of making the compressed air.

In the food processing industry Silver Fern Farms in Belfast was one of the first to have its compressed air system audited by Mr Norriss. The audit identified plant-wide electricity savings opportunities in the compressed air system servicing the stock processing areas and the effluent plant that will reduce the plant's annual electricity costs by \$25,000.

Mr Norriss said that in addition to their positive contribution to the bottom-line, the improvements provided Silver Fern Farms with another green angle when questioned in international markets on the energy costs of its products or food miles.

The Electricity Commission has been the catalyst in bringing together people with a range of industry interests and establishing a programme that will enable the growth of self-sustaining Compressed Air Systems auditing businesses.

The Commission's research estimates electricity savings on a national basis of 230 GWh a year can be achieved through improvements in compressed air systems—enough to keep 25,000 homes in electricity for a year and reducing the costs of new electricity generation initiatives.

So far 115 'walk-through assessments' of compressed air systems have been completed through a programme supported by the Commission. Typically, the assessments have identified electricity savings potential of around 30 percent.

Most of the savings have been identified in air leakages, inappropriate uses of compressed air, or the way the compressors are controlled to maintain the supply of air.

"We've all heard the compressor thump into action at the local petrol station when no-one is pumping up their tyres. That means compressed air is leaking somewhere and it is all wasted energy" Mr Norriss said.

"The Electricity Commission pays for an initial walk-through assessment of a company's compressed air system and if good potential savings are identified, it is followed with a more detailed in-depth audit. This more accurately quantifies the savings and the payback on doing corrective work," Mr Norriss said.

"It's a no brainer for the client companies and New Zealand is leading the world in compressed air energy auditing," he said. "Many of the improvements are obvious from the walk-through assessment. If a follow-up in-depth audit is undertaken, the client companies make a commitment to actioning recommendations that fit within an agreed payback period."

He has had similar success in the timber industry. The audit of Nelson Pine Products showed \$280,000 a year was being spent on electricity to generate compressed air, and identified potential to save \$90,000 annually, for an estimated one-off cost of \$150,000.

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