

Re-manufactured compressors save money and mitigate CO₂

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A CURTIN study has revealed re-manufactured refrigeration and air conditioning compressors produce up to 93 per cent less greenhouse gas emissions than new original equipment manufactured (OEM) compressors.

Led by the Director of the Centre of Excellence in Cleaner Production, Associate Professor Michele Rosano, the research makes a case for the market development of re-manufactured compressors as a more sustainable alternative to traditional OEMs.

According to A/Prof Rosano, switching to re-manufacturing would

diminish the production of new OEM compressors, therefore avoiding the release of 1,590kg of CO₂ emissions.

“The replacement of a new OEM compressor with a re-manufactured one can mitigate about 1,470kg of CO₂ emissions, which is similar to the [greenhouse gas emissions](#) from 1.56MW/h of electricity generation in WA, and 1.71MW/h in Queensland and NSW,” she says.

“This electricity generation would meet the average electricity demand of an Australian household for three-and-a-half months.”

A/Prof Rosano says the results highlight the importance of re-manufacturing in reducing not only the resource intensity and carbon footprint, but also the cost associated with the purchase of a new compressor.

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A/Prof Rosano’s team has been working in partnership with Recom Engineering, leader in the re-manufacture compressor marketplace, for about three years to try to get industries to make the change.

However, Director of Recom Engineering Mr Peter Frey says his business has been around for 30 years and is still struggling to reach large industries such as Coles and Caterpillar. He believes re-manufacturing would thrive a lot more if the middle-men weren’t part of the deal.

“Re-manufactured compressors work as good and as long as OEM ones, cost half the price of a new compressor and come with a two-year warranty so there are no reasons why industries wouldn’t want to shift to

re-manufactured compressors,” he says.

“The problem we have is convincing the service companies we deal with to agree to supply their clients with re-manufactured compressors.

“Because they cost less, service companies are keener to sell new OEMs to get a better margin, especially in these hard economic times.”

However, Mr Frey says re-manufacturing could soon become industries’ first choice thanks to Sustainable Energy Australia (SEA)’s Director, Professor Ray Wills.

Promoting any enterprise that looks at reducing carbon emissions, Prof Wills says the need to demonstrate to government agencies and industries that re-manufactured compressors are as viable and reliable as research and precedent have shown is crucial to reverse the current market tendency of rejecting re-manufacturing goods.

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