

MEDIA RELEASE

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Australian SmartENERGY breakthrough positioned to spearhead up to half the nation's 2020 Carbon Reduction Target if broadly adopted

Aeris Environmental Ltd's Chief Executive Officer, Peter Bush, stated that the Company's breakthrough integrated coatings and optimisation technology could help drive up to half the entire Direct Action emissions target, providing major ongoing competitive advantages and savings for Australian businesses and government.

"If all Australian buildings implemented a simple retrofit action to their current air-conditioning and refrigeration plants, half of Australia's entire emissions reduction target could be met whilst dramatically increasing efficiency," Mr Bush announced today.

"The calculations come as a result of the assessment of recently-completed Australian SmartENERGY refrigeration and air-conditioning installations in commercial and residential buildings across Australia," Mr Bush said.

The work involved treating the existing spectrum of refrigeration and air-conditioning equipment with the Australian Company's patented breakthrough AerisGuard SmartENERGY optimisation solution.

"The possibility is to substantially assist with the emissions reduction target through broad implementation across a spectrum of Australia's high energy use buildings.

Mr Bush stated that there could be no simpler or effective single action that could be taken by Australian businesses to achieve such a great impact on Greenhouse emissions making Australian business more internationally cost competitive.

“Aeris SmartENERGY has immediate cost savings, typically an ROI payback period of less than two years and extends the life of equipment by as much as 10 years, whilst delivering dramatic improvements in indoor air quality,” he said.

The calculations by Aeris’ scientists and external advisers use the “Cold Hard Facts 2: Report,” prepared for the Department of Sustainability, Environment, Water, Population and Communities and National Greenhouse account factors: published by Department of Climate Change and Energy Efficiency July 2012, for NGER’s reporting structure.

“Air-conditioning and refrigeration has been identified as offering the greatest single opportunity to immediately achieve the reduction in carbon emissions targeted by the Federal Government,” said Mr Bush.

“The Aeris solution provides a significant opportunity for Australian business and government to demonstrate thought and market leadership, highlighting how we can solve a local problem whilst providing global markets with proven Australian innovation. We are inviting the government and the business sector to consider the implications of this Aeris SmartENERGY solution with the dual effect of making Australia more competitive as it deals with prevention rather than cure,” he said.

Air-conditioners and refrigeration systems represent 22% of all Australia’s electricity production usage. This represents 42.46MT or 10% of total emissions, according to Aeris scientists.

In any given building, HVAC represents on average 52% of the total energy consumed by that building.

“Using Cold Hard fact data, broad implementation of SmartENERGY presents an opportunity to achieve up to half of the total emissions target prior to 2020, according to Aeris,” Mr Bush said.

“Total indirect Greenhouse gas emissions as a result of energy consumption to power refrigeration and air-conditioning systems are approximately 57.1MtCO²-e per annum, equivalent to more than 10% of the Australian Greenhouse emissions, as calculated by the 2011-12 NGGI.”

“Dramatic reductions averaging 25% in energy savings and improved efficiency were achieved in a broad cross-section of facilities, including shopping centres, retail, industrial, health care facilities and major hotels,” Aeris said.

“Buildings incorporating the Aeris integrated SmartENERGY solution are achieving on average 25% reduction in RAC energy usage, with improved air flow, air quality and a significant impact on peak demand usage,” Mr Bush said.

“There are over 45 million individual pieces of equipment forming the total National RAC equipment register, all of which contribute to National energy consumption.

“The Aeris SmartENERGY solution is equally relevant to domestic and smaller building installations. Considerable financial savings and air quality outcomes are also available to SMEs and householders, with the added benefit of healthier air,” Mr Bush stated.

“The SmartENERGY system provides ongoing data, reporting and monitoring to track the savings. Importantly, the incorporation of SmartENERGY can, in most cases, assist buildings in demonstrably improving their energy ratings.”

According to Australia’s Department of Resources, Energy and Tourism, for every new 2kW (electrical input) of air-conditioning capacity added to the electrical distribution networks, some \$7,000 in costs for network augmentation are imposed on the system (DRET 2011).

Whilst it is clear Refrigeration Air-Conditioning (RAC) systems equipment are a very significant feature in the Australian energy economy, they are also the main source of direct emissions of synthetic Greenhouse gases.

In a recent address, Greg Picker, Executive Director of Refrigerants Australia and Policy Advisor to the Air-Conditioning and Refrigeration Equipment Manufacturers Association, made the point that performance relates directly to air flow capability and maintenance.

Mr Picker said, “energy efficiency is often described as perhaps the one sensible climate change policy that we can all agree on. And why not? Delivered well, energy efficiency saves consumers money, reduces energy demand and the need for increasing electricity infrastructure, all the while reducing Greenhouse gases and acting as a benefit to the economy as a whole.”

“The GEMs Act, which covers minimum energy performance standards, and the Ozone Protection and Synthetic Greenhouse Gas Management Act (which requires tradespeople working on these systems to meet certain requirements), are both being reviewed. Concurrently, the Government is developing energy policy through its White Paper process.”

Aeris is now working with the full spectrum of business, from SME, corporate Australia, the energy industry, and all levels of Government to provide a powerful future driver of the Nation’s sustainability objectives.

Aeris Environmental Ltd is focussed on the global megatrends of energy efficiency, healthier air, food safety, water quality, and long-term materials protection, with core guiding principles of ‘clean, green, protect’.

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