

Media Release

Chiefs of Staff, News Directors

Tuesday, 1 December 2015

Design and efficiency of wood heaters to be revolutionised with new research facility

A new research facility designed to revolutionise the design of wood heaters which meet renewable energy targets by using recycled forest fuel will be outlined at the Bioenergy Australia Conference in Launceston today (Tuesday, 1 December).

The Pyrotron will be based at the University of Tasmania and is a specifically designed research laboratory which will examine the burning of organic material (biomass combustion) processes and emissions, focussing on landscape fire (such as bushfire fuel reduction) and wood heaters.

In particular, researchers will contribute to the development of national standards for wood-pellet burning heaters. Currently there is no Australian standard for safe installation of these heaters.

They are also looking at how a new generation of very low emission wood-pellet burning heaters might be considered under the renewable energy target to reduce greenhouse gases, where incentives could be offered similar to solar panel rebates.

The Pyrotron will be the first facility of its kind in Australia and is a collaboration between Dr John Todd, Professor David Bowman (School of Biological Sciences, University of Tasmania) and Dr Fay Johnston (Menzies Institute for Medical Research, University of Tasmania).

It is due to be launched in March next year.

“Burning biomass is arguably the largest source of air pollution in Australia,” Dr Todd said.

“There have been many studies, where through strong evidence both observed and theoretical, which indicate adverse health impacts.

“Through our research we are aiming to produce better fire management and better designs for wood heaters.

“As energy costs continue to rise, cold-climate locations like Tasmania have to look at efficient and effective ways of heating.

“Wood heaters are highly polluting and wood pellets can be expensive.”

Dr Todd said the use of wood pellets in Europe and North America were very common and are considered as renewable energy. In some cases they are even subsidised.

Dr Fay Johnston said that outdoor wood smoke is Tasmania's most important environmental health hazard.

"Around 100,000 Tasmanians suffer from conditions that can be made worse by air pollution. These include asthma, COPD (Chronic Obstructive Pulmonary Disease) and heart disease," she said.

"Reducing outdoor air pollution will reduce our annual death rates.

"A research facility to develop less polluting wood-heaters is sorely needed."

Professor David Bowman said forestry residues that are currently burnt releasing significant amount of greenhouse gases could be used to create pellets.

Another potential source is thinning to reduce bushfire hazards in bushland surrounding homes.

"We have an enormous amount of bush fuel in Tasmania which we could turn into energy. It's a win-win case," he said.

The researchers are hoping to influence policies which would subsidise wood pellet production from forest thinnings to reduce bushfire risk.

Dr Todd will be presenting at today's national conference in Launceston.