Victoria urgently needs to confront its residential wood burning problem. "Strengthening Victorian equipment standards, such as for wood heater emissions" is a meaningless non-solution that will do nothing to help improve air quality.

The best value action that would help improve future air quality would be to phase out residential wood burning and to enact programs to help people transition to reverse cycle air conditioners for genuinely clean, efficient heating. Even the newest "high-tech" wood heater on the market is exponentially more polluting than heating with gas or electric. Any encouragement or support of newer wood heaters, along with meaningless "efficiency" standards, needs to be avoided. Numerous studies have demonstrated that newer wood heaters are far more polluting in real-world usage than their certification levels suggest. But even when used perfectly, they are still far too polluting to be safely used in residential areas. For example, the Danish Ecological Council conducted a study on a modern eco-labelled wood heater burning wood under ideal operational conditions using dry wood and recommended burning technique. They found that "even under optimal firing conditions in a good eco-labelled wood stove, particle emissions increase instantaneously to the maximum limit of the measurement equipment of 650,000 particles per [cubic centimetre]." By comparison, the exhaust from a modern diesel truck was measured at less than 1,000 particles per cubic centimetre.

The website for Doctors and Scientists Against Wood Smoke Pollution includes a comprehensive bibliography of hundreds of research studies detailing the hazards of wood smoke pollution. Pollution from residential wood burning, unlike pollution from industry or cars, is emitted right inside and next to people's homes, where it can inflict the greatest amount of harm. Toxicology studies have found wood smoke to be more mutagenic than diesel exhaust (for example, see: https://pubs.acs.org/doi/abs/10.1021/tx100407m). Wood smoke is higher in polycyclic aromatic hydrocarbons (PAHs) than traffic exhaust. These are chemicals that are linked to cancer, developmental harm to fetuses and children, and worsened outcomes for cardiac patients.

To secure a clean air future, Victoria needs to eliminate residential wood burning. New efficiency or "equipment" standards won't solve the problem, but encouraging a switch to reverse cycle air conditioners, along with strong prohibitions against burning wood and emitting smoke in residential areas, will.

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