

Friday, June 19, 2020

LEADING HVAC&R FOR 100 YEARS



Dear Technology Investment Roadmap Consultation Team,

The Australian Institute of Refrigeration, Air Conditioning and Heating (AIRAH), as Australia's peak membership body for engineers working in the HVAC&R space, wishes to provide input for consideration into the consultation process for the development of the Technology Investment Roadmap.

According to the *Cold Hard Facts 3* report published in 2018, Australian refrigeration and air conditioning was responsible for 13 per cent of total national CO₂e emissions, with more than 56 million individual pieces of equipment consuming more than 61,000GWh of electricity – about 24 per cent of all electricity used nationally. When you consider heating and ventilation usage, even more energy was consumed.

The HVAC&R industry consists of about 20,000 businesses nationally, employing 298,000 people across Australia. In 2016 the industry had overall expenditure of more than \$38bn, which represented 2.3 per cent of national GDP. These are big numbers, illustrating how deeply embedded HVAC&R is within every aspect of the Australian economy.

As Australia and the developed world acts to control and contain carbon emissions, it is clear that low-emission HVAC&R has an essential role to play. Future HVAC&R must therefore be low-impact and low-carbon.

At AIRAH we have developed a blueprint for our industry to successfully transition to a low-emissions future. This blueprint is called PRIME:

Professionalism

Skills and training, licensing, professional registration, tertiary education and an industry council or forum to consider strategy, policy, information sharing, and industry practices.

Regulation

Inform government policy and regulations, industry codes and Australian Standards, including validation, regulatory data, and enforcement.

Information

Educate and inform end-users, disseminate low-emission skills and knowledge, technologies, design practices, convert data to information.

Measurement

Measure and benchmark HVAC&R performance using system rating tools, industry metrics, building tuning, system optimisation, validated efficiency claims and technology-comparison tools.



Emission abatement

Product stewardship, new technologies, work practice accreditation, incentivising low-emission interventions, maintenance for energy efficiency, and refrigerant containment.

AIRAH believes that this holistic approach will help the HVAC&R industry, and Australia, transition to a low-emissions future.

We understand that the key role of the technology investment roadmap is to accelerate new and emerging technologies that can help reduce emissions. As identified by the economy-wide survey that underpins the roadmap, the HVAC&R sector is rich in such technologies. And we are already seeing important investment in this sector.

The Innovation Hub for Affordable Heating and Cooling (i-Hub) is an initiative led by AIRAH in conjunction with CSIRO, Queensland University of Technology (QUT), the University of Melbourne and the University of Wollongong and supported by Australian Renewable Energy Agency (ARENA) to facilitate the HVAC&R industry's transition to a low emissions future, stimulate jobs growth, and showcase HVAC&R innovation in buildings.

The objective of i-Hub is to support the broader HVAC&R industry with knowledge dissemination, skills-development and capacity-building. By facilitating a collaborative approach to innovation, i-Hub brings together leading universities, researchers, consultants, building owners and equipment manufacturers to create a connected research and development community in Australia.

We believe that continued funding of i-Hub and similar future initiatives is vital, not only to accelerate technologies, but also to support the complementary work that will ensure the greatest possible return on technology investment.

We understand that the next step in this process is for the Department of Industry, Science, Energy and Resources to lead targeted consultation processes with specific sectors. AIRAH would be pleased to provide assistance in relation to the HVAC&R sector.

Regards,

Tony Gleeson, M.AIRAH

AIRAH Chief Executive