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AIRAH submission

# NSW Energy Savings Scheme review – Issues paper



Prepared by:

The Australian Institute of  
Refrigeration Air Conditioning  
and Heating

AIRAH Strategic aim #1 - *Claim the sustainability space*  
AIRAH Strategic aim #3 - *Inform regulation and policy decisions*

## Prepared and Co-ordinated by

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## About AIRAH

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AIRAH is the recognised voice of the Australian air conditioning, refrigeration and heating industry. We aim to minimise the environmental footprint of our vital sector through communication, education and encouraging best practice.

## AIRAH – Strategic Aims

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### **Claim the sustainability space**

Through its conferences, publications, manuals and training, AIRAH will educate and motivate the HVAC&R industry and related fields about achieving sustainability. Our aim is to be the HVAC&R organisation whose values are aligned with sustainability in a practical sense

### **Close the skills gaps**

At a time of rapid change of new technology and standards, and a shifting regulatory landscape, AIRAH will provide relevant professional development for HVAC&R industry personnel, and work alongside government and providers to ensure the voids in formal training are filled.

### **Inform regulation and policy decisions**

As the key industry organisation representing HVAC&R in Australia, it is essential AIRAH collaborate with government at both the state and federal levels. The collective skills and specialist knowledge of the Institute can better inform decisions that affect society and the HVAC&R industry.

### **Build and engage membership**

AIRAH will become the institute of choice for HVAC&R professionals in Australia. This means ensuring that formal connection with AIRAH provides benefits – actual and intangible – that are valuable, worthwhile and attractive to our members throughout their professional lives.

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## Submission

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The Australian Institute of Refrigeration, Air Conditioning and Heating welcomes the opportunity to comment on the NSW Energy Savers Scheme (ESS) Issues Paper. AIRAH fully supports the NSW ESS scheme and advocate for its continuation, strengthening and expansion.

Air conditioning and refrigeration account for 22 per cent of national electricity use, and close to 12 per cent of Australia's direct and indirect emissions, with heating and ventilation adding to that. Therefore, there is considerable scope for large-scale, low-cost emissions reduction from HVAC&R through a range of measures.

All of the processes of commissioning, recommissioning, retrocommissioning and energy efficiency focused maintenance for building HVAC and commercial refrigeration have been proven to provide significant energy savings, both in Australia and internationally. These processes tend to be labour-intensive rather than capital-intensive, and focus on improving the operational efficiency of existing systems and plant rather than totally replacing systems and plant. Commissioning, recommissioning, retrocommissioning and energy-efficiency focused maintenance activities for building HVAC and commercial refrigeration should all be allowable activities under ESS rules.

Activities and technical protocols that are utilised in the ESS and are proven to be successful should be shared with industry. Success stories can help to incentivise the energy efficiency intervention market, both inside of and external to the ESS. The NSW government should facilitate the development of case studies, technical guidance and awareness raising materials across a range of sectors including HVAC&R. AIRAH is willing to "curate" knowledge, data, findings, case studies and the like, developed from these types of schemes, so that the IP is not lost when a scheme changes or stops.

AIRAH has played a lead role in the development of a whole of industry pathway to a low-emissions future called PRIME. PRIME is the HVAC&R industry's blueprint for a successful transition to a low-emissions future through Professionalism, Regulation, Information, Measurement, and Emission abatement. Many of the recommendations are based on industry proposed and agreed solutions developed through the PRIME initiative.

AIRAH looks forward to contributing to the government's further consultation process about the ESS. Please do not hesitate to contact me if you have any queries about this submission or the comments made.

Yours sincerely,

Phil Wilkinson **MEng M.AIRAH M.IEAust M.ASHRAE**  
Chief Executive Officer AIRAH

Q1	What other issues should this ESS Review consider to help deliver the NSW Energy Efficiency Action Plan?	The ESS review should consider how this state-based scheme should/could interface with the federal Emission Reduction Fund.
Q2	What other information could be kept on the Energy Savings Scheme Registry that would assist with any of the issues identified in this paper?	
Q3	How can the Government attract more existing energy efficiency service providers to either become an ACP or to partner with ACPs?	<p>Reduce the complexity and cost of accreditation, auditing and administration.</p> <p>Encourage the aggregation of smaller projects and actions by creating network opportunities between aggregators and end users/SMEs. (Aggregation get-together workshops for end users).</p> <p>Encourage or develop case studies of successful aggregation projects.</p>

Q4	<p>Apart from the proposed ESS Rule changes, how can the ESS encourage a broader diversity of activities?</p>	<p>Refrigeration, fans and pumps in HVAC&amp;R and system recommissioning, retrocommissioning and tuning offer significant energy saving opportunities.</p> <p>Perhaps some case studies of successful ESS interventions would help to broaden the thinking and trust of industry.</p> <p>Calculation tools embedded in the ESS can ‘lock in’ a limited number of specific solutions and create a barrier for other newer products not represented in the tool. Regular (annual) updates of the tool should be carried out to provide for incorporation of new technologies. To ensure maximum industry innovation and cost effective savings, the scheme could provide flexibility for industry to have their products independently reviewed/assessed with documented processes for incorporating them into the ESS. A wide range of air conditioning and refrigeration technology solutions would likely emerge if the scheme could create flexible approaches to measurement, verification and validation that allow new and contemporary technologies to be included on a level playing field basis.</p> <p>The Deemed Energy Savings approach is one of the most attractive approaches for industry, and should be incorporated in the ESS where possible. The potential exists for a range of other refrigeration, air conditioning and heat pump solutions to be included under the deemed energy savings method. This approach should be considered in future amendments to the Rule, in order to provide industry with the ability to innovate and develop new products with greater confidence of achieving eligibility under the ESS (and other schemes).</p>
Q5	<p>Are there market barriers to regional delivery under the ESS and if so should the NSW Government address those barriers? How could the Government address these issues?</p>	<ul style="list-style-type: none"> <li>• Subsidize the cost of accreditation /training for Accredited Certificate Providers (ACPs) in rural/regional areas.</li> <li>• Look at targeting rural/regional businesses with ESS information, e.g. refrigeration in agriculture, cold chain businesses, saw mills etc.</li> <li>• Engage with regional industry associations to facilitate contact with aggregators.</li> <li>• Adopt VEET approach regarding distribution losses and audit costs.</li> </ul>

Q6	What has been the impact of ESC price volatility since the scheme started?	Uncertainty in the market.
Q7	Is greater ESC price transparency desirable?	Yes the ESS administrator should provide for greater price transparency.
Q8	Should the reporting on actual energy savings better reflect expected savings rather than the estimates required for ESC creation?	Actual data on savings should always be used where available.
Q9	Should the ESS report on expected actual savings from forecast future ESC creation, as well as past ESC creation, in order to improve energy market planning?	Yes AIRAH believe that this would assist with energy market planning, future forecasts need to be transparent (in their estimates) and validated as soon as practicable (results of validity analysis to inform future estimates).
Q10	What approach to economic modelling is most appropriate for this review?	A static model approach with very conservative estimates for assumed benefits of network investment reduction and energy saving persistence. Overestimation of these two variables can significantly alter the outcome of the modelling.
Q11	What policies have proven successful in white certificate schemes in other jurisdictions in Australia and around the world that NSW could incorporate in the ESS?	Refer to individual scheme administrators.
Q12	What are the advantages and disadvantages of a state-based versus a national scheme?	AIRAH have a preference for a National scheme but encourage all state-based schemes to align as much as possible in the interests of productivity. It is important that all schemes interact and dovetail appropriately. Harmonisation and mutual recognition is useful.
Q13	How should the NSW Government prioritise further harmonisation?	This should be a high priority and all state administrators should attempt to review and update schemes in harmony.

Q14	How can the NSW Government provide investment certainty for participants in the ESS while the details and timing of the Emissions Reduction Fund are developed and finalised?	The ERF is still a work in progress and the details have not been finalised or released. ESS should be able to dovetail with ERF.
Q15	How well does this vision of market transformation meet the needs of NSW households and businesses?	A larger incentive fund would facilitate the speed and depth of market transformation.
Q16	How can reporting on market transformation and opportunities best help the NSW economy take advantage of the ESS?	By documenting successful ESS projects and distributing this information to stakeholders likely to be able to participate in the scheme. Show potential scheme participants how to engage, the costs and the benefits (financial and other).
Q17	How can NSW encourage broader access for service providers to the ESS?	By including new technologies in the scheme and establish methods of M&V for energy savings. By including non-capital (but labour intensive) activities including system/building tuning, recommissioning, retrocommissioning, refurbishment and energy efficiency maintenance within approved activities.
Q18	What other support functions might help the ESS drive market transformation?	Harmonising approaches with other state-based schemes. Creating performance based outcome driven standards and protocols for significant sectors. Harmonising or dovetailing with Federal ERF scheme.
Q19	What roles should the NSW Government have in facilitating the ESS market?	Activities and technical protocols that are utilised in the ESS and are proven to be successful should be shared with industry. Success stories can help to incentivise the energy efficiency intervention market, both inside and external to the ESS. The NSW government should facilitate the development of case studies, technical guidance and awareness raising materials across a range of sectors. AIRAH would be willing to host HVAC&R related energy efficiency materials on our website to ensure that information developed from the ESS penetrates and persists in the target market.
Q20	How can the NSW Government better co-ordinate its market transformation efforts?	By creating communications and technical guidance that reflects lessons learned from the ESS activities and projects and sharing these freely with the relevant industry sectors. AIRAH is willing to “curate” knowledge, data, findings, case studies etc developed from these types of schemes so that the IP is not lost when a scheme changes or stops.

Q21	How might the NSW Government help provide ESC price transparency?	The NSW Government could require all trades and prices be recorded in the ESS registry and made publically available.
Q22	How could compliance processes be improved?	Reduce the focus on First Audit. Introduce spot audits and be transparent regarding the penalties.
Q23	How could enforcement processes be improved to ensure high levels of compliance without excessive cost burdens on the Government?	Actually apply penalties for breaches. Ban non-compliant parties from participation in the scheme (and other schemes). Remove or revoke accreditation where appropriate.
Q24	How could the ESS Rule development processes be improved?	Agree with annual rule review/changes. Allow any person/entity to propose a rule change, outlining the changes and the reasons for it (model on ABCB PFC system for NCC). Set up a technical advisory group to consider proposed changes.
Q25	How can evaluation and continuous improvement be better incorporated into the ESS?	The ESS scheme and rules must be fully transparent and should not attempt to hide accepted innovations or calculation methods. Any methods proposed by 'first movers' must be made publically available when accepted into the ESS. If a proponent refuses to make the method publically available (the method not the tool) then it should not be accepted into the scheme. A combination of analysing alternative methods, tools and rule changes and publicising accepted methods will embed continuous improvement into the operation of the ESS.
Q26	Should market engagement be improved?	Better communications and case study materials on the ESS successes. Create networking opportunities between energy saving companies or aggregators and end users/SMEs.
Q27	How could scheme reporting be improved?	Make as much information about the scheme and individual projects available as possible. The scheme is supposed to incentivise energy savers and energy users so a more informal approach to ESS information should be adopted as well as the current formal reporting.



Q28	Should administration fees reflect the full cost of developing and managing the ESS?	Conduct an analysis of the administration costs for IPART. 2.7 million Appears to be very high. Investigate all opportunities to reduce these administration costs. Then look at increasing ESS charges, as a last resort.
Q29	Should audit processes be reviewed to reduce costs while protecting compliance?	Yes, every opportunity to reduce audit and other administrative costs should be investigated.
Q30	Should the NSW Government review targets to optimise the benefits to the economy?	Yes, targets should be reviewed.
Q31	Should the current approach to setting targets be revised?	Yes, a transparent approach should be adopted to develop targets based on current information, for endorsement by the minister.

<p>Q32</p>	<p>Should the ESS be the main mechanism for achieving the NSW 2021 target? What alternative program or policy options might help?</p>	<p>Air conditioning and refrigeration account for 22 per cent of national electricity use and close to 12 per cent of Australia’s direct and indirect emissions, with heating and ventilation adding to that. There is therefore considerable scope for large-scale, low-cost emissions reduction from HVAC&amp;R through a range of measures.</p> <p>AIRAH has played a lead role in the development of a whole of industry pathway to a low emissions future called PRIME. PRIME is the HVAC&amp;R industry’s blueprint for a successful transition to a low-emissions future through Professionalism, Regulation, Information, Measurement, and Emission abatement. Many of the following recommendations are based on industry proposed and agreed solutions developed through the PRIME initiative.</p> <p>There are a range of additional regulatory reforms and actions that should be taken in support of the ESS. Regulatory reform opportunities that would complement the ESS include the review of regulations that deal with the direct emission of ozone depleting and synthetic greenhouse Gas refrigerants. It is unclear how the ESS incentivises reductions in direct emissions from refrigeration (and air conditioning) systems. The NSW Government and industry could agree a set of design, installation and maintenance protocols to address the issue of refrigerant leakage. The Government and industry should also develop and agree a national model for licensing refrigerant mechanics and refrigerant handling, for all refrigerants, strongly linked to competency training and skills maintenance. Other actions that the NSW Government could consider include:</p> <ul style="list-style-type: none"> <li>• Providing incentives for energy efficiency maintenance, including information and case studies documenting the benefits. (PRIME)</li> <li>• Increased inspection/certification around the application of the minimum building/energy standards of the National Construction Code (NCC) in new buildings and refurbishments.</li> <li>• The introduction of minimum requirements for the mandatory commissioning of buildings and their services systems into NCC. (PRIME)</li> <li>• Strengthening and broadening the scope of the MEPS scheme (e.g. MEPS for Fans and Pumps). (PRIME)</li> </ul>
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Q33	Is the current penalty price appropriate? If not, what factors should be considered?	The penalty price should consider all the benefits that accrue from ESS activities.
Q34	Should banking and borrowing be improved to increase flexibility to balance short-term supply and demand?	Yes
Q35	Is there a need for Government to address the current oversupply of ESCs?	Yes
Q36	Should the NSW Government extend the ESS past 2020? What conditions would need to be met to end the ESS?	Yes the scheme should be extended and strengthened.
Q37	Should the ESS be expanded to cover natural gas?	Yes the scheme should be expanded to include natural gas.
Q38	What are the pros and cons of different certificate conversion factors?	
Q39	How should liable acquisitions and eligible energy savings be defined for natural gas efficiency?	The scheme should include for mass market, industrial sites and power generation.

Q40	How can the ESS encourage greater participation by vulnerable households?	Create a separate government fund to assist vulnerable households with a further 33 per cent of costs
Q41	Should the treatment of emissions-intensive trade-exposed sites be reviewed?	Exemptions for emissions-intensive trade-exposed (EITE) sites should be removed.
Q42	How should the impact of energy efficiency activities on peak demand events be calculated?	Conservation Load Factor (CLF) seems like a reasonable approach but there should be a range of factors available depending on the location and timing of the EE activities.
Q43	How can information be provided to electricity infrastructure planners to ensure that the impact of the ESS on peak demand is properly accounted for?	Planners should rely on their own data and not ESS forecasts.
Q44	How can the ESS be enhanced to encourage energy savings at the times of peak demand, particularly in constrained network locations?	The ESS should provide a method for aggregating peak demand EE interventions.