Tax Breaks for Green Buildings Consultation - Submission Template

Information about using the submission template

Submissions should be made by close of business Friday 18 February 2011 to the Department of Climate Change and Energy Efficiency (DCCEE). DCCEE reserves the right not to consider late submissions.

Stakeholders are encouraged to use the following template to provide feedback on the consultation paper. The template consists of two parts. Part A requests the provision of details of the submitter. Part B lists all the questions raised in the consultation paper and also includes an invitation to provide general comment on the issues raised in the paper. Stakeholder may choose to respond to part or all of the questions in Part B.

A Microsoft Word version of the template is available from the Tax Breaks program website at http://www.climatechange.gov.au/government/initiatives/tax-breaks-for-green-buildings.aspx. This version is editable and will allow submitters to fill their information and comment. Where possible, submissions should be lodged electronically, preferably in Microsoft Word and using the template provided, via the email address: taxbreaksforgreenbuildings@climatechange.gov.au.

Submissions may alternatively be sent to the postal address:

Tax Breaks for Green Buildings
Department of Climate Change and Energy Efficiency
GPO Box 854 Canberra, ACT 2601

Submitter should refer to the consultation paper, in particular sections 1.4 and 1.5, for further information about making a submission.

Submission Template

Part A

Please fill in the following details of the submitter.

Name of organisation/ individual:	Australian institute of Refrigeration Air Conditioning and Heating			
Contact person:	Phil Wilkinson			
Tel (office):	03 8623 3010			
Tel (mobile):	0415 296 918			
Postal address:	3/1 Elizabeth Street, Melbourne, VIC 3000			
Email address:	phil@airah.org.au			
Please indicate the stakeholder group/s that you or your organisation belong to	Office buildings	Y	Hotels	Y
	Shopping centres	Y	Energy efficiency firms	Y
	Construction companies	N	Taxation	N
	Other (Please specify): Our members typically cover the areas marked Y			

Note: Part A of a completed submission template will be removed before the rest of the submission is published online. However, names of submitters will be published with the submission. Please refer to Section 1.5 of the Consultation Paper for further details.

Part B

NOTE: It is intended that all submissions, including the names of the submitters, will be made publicly available online after the close of submissions, and may be used by DCCEE in subsequent publications, unless the submitter requests that the submission, or part of it, be treated as confidential. Please refer to Section 1.5 of the Consultation paper for further details.

Question 1

What is a fair way of dealing with existing office buildings that cannot be rated using NABERS Base Building rating tool because of insufficient sub-metering? Is it appropriate to use NABERS Whole Building rating tool for the initial rating for this group of buildings?

Comment:

AIRAH believe that the cost associated with the installation of required sub-metering and the costs associated with the initial NABERS assessment and rating should be included as allowable expenditure under the program. This would encourage building owners to install the required metering and ensure that the building analysis and retrofit decisions are based on accurate data rather than assumptions.

Question 2

What is a fair way to dealing with vacant buildings that cannot be rated accurately by NABERS? Is it appropriate that if a building was built before 1995 and has not undergone any major refurbishment since then, the building is deemed to be having a NABERS rating of 2 stars for the purpose of this program?

Comment:

No comment

Question 3

What are the factors that should be considered in designing an exemption regime?

Comment:

No comment

Question 4

Are NABERS ratings appropriate to be used to measure and verify energy efficiency performance of the buildings for the purpose of the Tax Breaks program?

Comment:

AIRAH strongly agrees that NABERS rating methodology is appropriate to verify energy efficiency performance for the purposes of the tax breaks program. We disagree with the proposal for the oversimplification of an improvement from two stars to four stars. We have two major issues with this:

1 – two stars to four stars does not equate the same result in carbon savings in different geographical locations eg - two stars to four stars in Melbourne is not the same saving in greenhouse emissions as two stars to four stars in Sydney etc.

2 – we understand the aim of the program is to improve greenhouse / carbon performance of buildings and believe further discussion is warranted about looking at buildings with zero and one star ratings and how they can be improved.

Question 5

Are there any other measuring methodologies should be considered? If yes, how can the credibility of these methodologies and the assessors be guaranteed?

Comment:

No comment

Question 6

Is it appropriate to use a global retrofit costing approach for the Tax Breaks program?

Comment:

No comment

Question 7

Should non capital expenditures be allowed for this program? If so, what non capital expenditures should be allowed?

Comment:

AIRAH strongly recommend that non capital expenditure be included in the program.

AIRAH (under Green Building Fund Stream B) have developed an Application Manual covering building commissioning and retrocommissioning (The manual has been developed in conjunction with the country's leading authorities in this area). **Retrocommissioning** differs from **retrofit** in that the whole building is analysed from a performance perspective. Retrocommissioning means the review and adjustment of buildings and their services to achieve the best possible alignment of system/building performance with the buildings current operational requirements.

In the Application Manual the retrocommissioning process has been broken down into 4 phases:

- Planning
- Investigation
- Implementation
- Handover

In addition there are preparatory tasks that should be completed prior to retrocommissioning and strategies that should be implemented after the program to ensure/assist the persistence of the energy and non-energy benefits achieved.

The following non capital expenditures have been identified and are essential to the process:

- Documentation search – Building related documentation including as-installed drawings, operation and maintenance manuals, maintenance log books, original commissioning data and the

like all need to be discovered, reviewed and (preferably) updated prior to or during the retrocommissioning project.

- Building occupant survey - Survey of building occupiers, operational staff (including cleaning and security) and contractors (maintenance and controls) to identify building issues.

- Metering and monitoring – Systems and buildings need to be metered and monitored prior to the retrocommissioning program to accurately determine their current operational performance. This may require the installation of meters, sub-meters and data loggers and the analysis of the metered information. This activity should be carried out in advance of the retrocommissioning project.

- Benchmarking – preliminary benchmarking of the building also needs to be carried out e.g. to the NABERS rating scheme.

- Planning the program – Including the appointment of a retrocommissioning manager and the scoping of the project all incur costs.

- Developing project operating requirements (POR) – Owners need to document their specific requirements for their current building. These may be significantly changed from the original requirements used as the basis for the original design of the building and its services systems.

- Survey existing systems – A comprehensive physical survey of all systems that fall within the defined scope needs to be carried out. Building documentation, occupancy surveys and building performance data (mentioned above) are all used to inform the physical survey.

- Review essential safety measures – Essential safety measures including fire and life safety systems need to be surveyed to assurance compliance with federal and state based legislation.

- Review of building controls – Building controls and Building Management and Control Systems (BMCS) are essential aspects of any building retrocommissioning program. A good knowledge and detailed review of the existing control system is essential (refer *AIRAH DA28 Controls).*

- Developing test procedures and plans, performing diagnostic monitoring, testing system integration are all methods used to identify potential system improvements.

All of these non-capital expenditures would be required in any retrocommissioning program prior to the implementation phase where equipment and systems are retrofitted to a building. These expenditures would be in addition to the capital expenditures associated with the project.

In addition, there are several non-capital expenditures within the implementation and handover phases which can include:

- Commissioning new and altered systems and integrating new and existing systems (refer AIRAH *DA 27 Commissioning and Retrocommissioning*)

- Updating building documentation.

- Delivering training to building managers and staff.

- Developing and documenting ongoing operational strategies to ensure the persistence of the energy efficiency benefits, e.g. building tuning procedures, recommissioning program.
- Developing and documenting ongoing maintenance strategies to ensure the persistence of the energy efficiency benefits, e.g. development of maintenance plans (refer AIRAH *DA19 HVAC and R Maintenance*)
- Ongoing training for facility managers

Again the costs of these essential steps in any successful retrocommissioning program should be allowed as eligible expenditure under the program.

Question 8

What is a reasonable range for the cap on non capital expenditure (e.g. 5 per cent to 10 per cent of the total project cost)?

Comment:

AIRAH see no reason why there should be a cap placed on non-capital expenditure. All buildings will be different and in some buildings non-capital expenditure such as reprogramming a BMCS system, training facility managers and building operating staff and correctly documenting the building systems and their operation and management, may exceed capital expenditure. The before and after NABERS rating/benchmarking process should provide sufficient proof of (energy saving) value and the ratio of capital to non capital costs should be left flexible for individual retrocommissioning projects.

Question 9

Should the same maximum value in $/m2 be used for all of the three sector?

Comment:

No comment

Question 10

What factors should be considered in determining the maximum values in $/m2 (or $/room for hotels) for the sectors?

Comment:

No comment

Question 11

Should a maximum value in $/m2 or $/room be used for hotels? (note: further discussion of using building area or number of rooms as a parameter for the hotel sector is included in Chapter 3.)

Comment:

No comment

Question 12

Are there any opportunities to improve the transparency and integrity of the program through the application and assessment process?

Comment:

AIRAH believe that program participants should be encouraged to take a holistic approach to improving the energy efficiency of their buildings. The AIRAH *DA 27 Commissioning and Retrocommissioning* manual defines a structured process for the planning, investigation, implementation and handover of these types of projects. It is not sufficient that more efficient chillers and variable speed fans and pumps are simply retrofitted to the existing building systems. Buildings should be assessed for their current operational requirements, retrofits need to be carefully scoped and managed. System documentation, building user guides and training on the new systems all need to be included in the program.

AIRAH have developed several guides, design manuals and training packages to help industry achieve energy efficient outcomes for HVAC and associated systems. These include:

- *DA 19 HVAC and R maintenance.*
- *DA 27 Commissioning and retrocommissioning.*
- *DA 28 Controls for buildings and HVAC&R.*
- Courses on energy efficient HVAC design.
- Courses on energy efficient building operations.

AIRAH strongly believes that the Tax Breaks program should be tied to these and other similar guidelines produced by other organisations to encourage program participants to take the wider "building in use" view rather than solely focussing on the NABERS rating outcome. The NABERS rating is important and fundamental to the program however, there are many intangible (non-energy efficiency) benefits associated with building retrocommissioning which can also flow from the Tax Breaks program if it recommends compliance with industry best practices.

Question 13

Is it appropriate to use the proposed competitive approach, including the proposed sectoral concession factor, to assess applications from three different sectors together (i.e. applications are competing with applications from all of the three sectors in the same round)?

Comment:

No comment

Question 14

Under the proposed competitive approach, should different Cap1 be set for each sector? What factors should be considered in setting the Cap1s?

Comment:

No comment

Question 15

Should number of rooms, instead of building area, be used in calculating the PCI for hotels? If building area is used for hotels as well, what would be an appropriate definition and verification method for the hotel sector?

Comment: No comment

Question 16

Is it appropriate to use the proposed entitlement approach, including the use of different values of Cap1 for different sectors and star rating improvement ranges, to process applications from all of the three different sectors together (i.e. applications from all of the three sectors are competing together and with each other on a first come first served basis)?

Comment: No comment

Question 17

Under the proposed entitlement approach, should different Cap1 be set for each sector and star rating improvement range? What factors should be considered in setting the Cap1s?

Comment: No comment

Question 18

Should funds (in terms of total value of the projects approved) be quarantined for each sector? What are the factors that need to be considered in quarantining the funds?

Comment: No comment

Question 19

Is the information required sufficient to ensure the integrity of the application and assessment processes? Are the proposed requirements for the provision of information appropriate or overly onerous?

Comment: No comment

Question 20

Is there any other information that should be made publicly available on the proposed register to improve the transparency and accountability of the program? Is there any information of an application that should not be made publicly available (e.g. due to commercial sensitivity or privacy issues)?

Comment: No comment

Question 21

What are the factors that need to be considered in designing the compliance regime? Are there any other measures that could be included to increase the robustness and effectiveness of the compliance regime?

Comment:

As stated previously AIRAH strongly believe that program compliance should be tied to industry best practice guidelines such as those developed as part of the Green Building Fund Stream B;

- *DA 27 Commissioning and retrocommissioning.*
- *DA 28 Controls for buildings and HVAC&R.*

Question 22

What level and/or type of sanctions would be appropriate for each type of non-compliance outlined in Section 4.3.3? Are there any other activities that should be considered as non-compliance?

Comment:

No comment

General comment

Please include any other comments or information you believe might help improve the design of the Tax Breaks program.

Comment:

AIRAH strongly submit that the Tax Breaks program should encourage the use of the building retrocommissioning process as outlined in Application Manual AIRAH *DA 27 commissioning and retrocommissioning.*

AIRAH strongly submit that energy efficiency training programs for facility managers are essential for promoting and achieving energy efficiency in buildings. A recent study conducted under the Low Energy High Rise (LEHR) project run by the Warren Centre concluded that the knowledge and skills held by the facility manager can have an effect on the building NABERS rating of up to 1.2 stars.

In addition to the above points AIRAH believe that building simulation protocols and particularly simulations assessing projected building energy use should be defined within the program. Building owners and managers may face significant risk if the retrofits adopted under this program underperform with regards to their simulated performance and the program should be designed to mitigate these risks.