Stakeholder Feedback on the draft Green Star 'PVC' credit

April 2010

The revised Green Star 'PVC' credit was developed by the Green Building Council of Australia (GBCA), in conjunction with its PVC Expert Reference Panel (PVC ERP), in order to update the 'PVC Minimisation' credit in previous versions of Green Star rating tools.

The GBCA ensures that the public review of the proposed revised PVC credit is transparent through a formal stakeholder feedback process; details of which can be viewed at www.gbca.org.au. The process includes publishing a Stakeholder Feedback Report. This document provides a summary of feedback on the revised PVC credit that was received in writing from stakeholders.

For each item of feedback, the GBCA's response is provided. As part of the process, any comments received after the public review period has closed are considered for further improvement as part of future versions of the PVC credit.

A total of 27 submissions were received; generally these are supportive of the changes to the credit. This report only includes feedback that calls for changes to be made to the credit.

The feedback is provided in italics. This is followed by the GBCA response to the feedback including any changes made to the credit based on this feedback.

Comment: *PVC windows have not been noted in the credit review and as such would not be subject to positive or negative credits. The Green Building Council should make it clear to the building industry that uPVC windows are not subject to negative or positive credits and are treated as any other window material.*

GBCA response: The GBCA agrees with this feedback. The credit clearly states that only PVC Pipe, conduit and associated fittings, PVC cable insulation and PVC flooring are addressed by the credit criteria. Any other PVC product is not subject to assessment under the credit and is neither positively nor negatively treated by the credit. Further clarifications regarding PVC products that are not subject to the credit criteria have been included in the credit.

Comment: *The credit should include PVC formwork in the 'standard' uses of PVC in buildings. PVC formwork offers many advantages in reducing the energy and material needed to construct walls.*

GBCA response: The GBCA does not agree with this feedback. The common uses of PVC addressed by the credit represents the bulk of PVC in the built environment, whilst rigid profiles (e.g. PVC formwork) represent 0.3% of the Australian market of PVC products in the built environment (refer image 1, Literature Review and Best Practice Guidelines for the Life Cycle of PVC Building Products, available on the GBCA website) and as such cannot be viewed as a common PVC use in the built environment.

Comment: *PVC Wall coverings used in healthcare facilities should be included in the list of PVC products addressed by the credit in the Green Star – Healthcare v1 rating tool.*

GBCA response: The GBCA agrees with this feedback. PVC wall coverings are included in market statistics used to determine common PVC uses in buildings, under flooring (refer image 1, Literature Review and Best Practice Guidelines for the Life Cycle of PVC Building Products, available on the GBCA website). The PVC credit in will include PVC wall coverings as one of the common uses of PVC.

Comment: *We urge the GBCA to avoid complex or onerous processes in the execution of this initiative. We urge it to avoid procedural barriers that would frustrate suppliers and users and limit their ability to realise its aims and objectives.*

AND

Comment: *We understand that an accredited standards process is being developed to ensure independent auditors employ the use of a verification compliance document for Green Star assessment. We urge that the intended assessment under the PVC Credit be straight-forward for easy compliance to ensure a rapid take up of an accreditation process by manufacturers and suppliers.*

GBCA response: The compliance documentation options offered by the credit will deliver fast uptake and documentation of compliance of PVC products to the Best Practice Guidelines. The Australian PVC industry agrees the credit criteria is appropriate and will facilitate a quick uptake of the Best Practice Guidelines for PVC in the Built Environment.

The credit allows for three options in documenting compliance to the Best Practice Guidelines through independent verification. The three options will facilitate the uptake of such verification.

Comment: *Extended supplier responsibilities (end of life product stewardship arrangements) should be limited to take-back of products manufactured in Australian facilities only.*

GBCA response: The GBCA disagrees with this feedback. Product stewardship arrangements are targeted at products originating from the manufacturer of these products. The credit applies to both domestically produced and imported PVC products, as do the Best Practice Guidelines.

Comment: *The review is generally very encouraging on recycling and reuse of PVC as improved options over landfill. This is agreed, however, if the GBCA encourages such processes there should be some form of compliance around what constitutes reasonable practice in the use of recycled materials, focussed on acceptable thresholds of elements (e.g. DEHP, Lead). This will ensure OH&S issues are not compromised.*

GBCA response: The GBCA agrees that any health risks arising from the use of PVC recyclate should be considered; however, the PVC Minimisation credit review process failed to locate established standards detailing thresholds of elements applicable to use of recyclate in PVC products addressed by the credit. The only product for which some performance requirements in this area are in place is pipe; some piping products are already subject to stringent Australian standards related to the use of recyclate as part of the Building Code of Australia although this is not based on acceptable thresholds.

As revealed by the literature review undertaken as part of the PVC Minimisation credit review, the health and environmental risks arising from the use of certain substances (for example DEHP, cadmium) in PVC products (relevant to the credit) are associated with workers' exposure during virgin material manufacture and at end of life landfill disposal (soil and water contamination). So that whilst health risks arising from recyclate use are not directly addressed in the Best Practice Guidelines, these risks are not the main issue related to substances of concern.

A statement reflecting consideration of health issues when recyclate is used has been included as a general recommendation to PVC product manufacturers (Refer to Literature Review and Best Practice Guidelines for the Life Cycle of PVC Building Products).

Comment: *With regards to actually being able to achieve the proposed credit, to assist designers and clients it is important to ensure that there is a central list of certified products available on the internet, which is easily assessable (like FSC and GECA certified web-based product databases). It is also important to ensure that certification can be obtained for all major PVC product types. For example, it will be hard to achieve this credit if rigid PVC products (pipes, conduits etc) can easily be certified, but flexible PVC products (like cables) struggle to obtain certification due to different manufacturing techniques.*

GBCA response: The GBCA agrees with this feedback. The Vinyl Council of Australia (VCA) is considering producing such a database, and the GBCA will work with the VCA to ensure this will be transparent and/or ensure other such databases are created. If a particular PVC product category (e.g. cable insulation) is unable to meet the Best Practice Guidelines for PVC in the Built Environment the credit encourages the use of alternatives.

Practice Guidelines for PVC in the Built Environment contain criteria that address both flexible and rigid PVC products.

Comment: *We encourage the recognition of increase in opportunities to recycle PVC products at the end of life. To further encourage this within the industry, we recommend the following documentation requirements be added to the credit:*

Extract(s) from the specification(s):
Requiring that the contractor / demolition contractor remove and recover all existing PVC on site and any PVC off-cuts during installation, and organise for these to be collected or sent to the local PVC recycling depots (or equivalent).

GBCA response: The GBCA agrees with this feedback in principle, but this feedback relates to the Man-7 'Waste Management' credit (minimising construction waste going to landfill) and so will be considered in the forthcoming review of the Management category.

Comment: *There may in fact be alternative PVC products that from an environmental perspective are performing as well, or better, than PVC, but these products are not being encouraged to be used in the proposed credit. This is an important issue to address, especially given, since the conception of Green Star, the industry has been encouraged not to use PVC, which has increased the production of products made from PVC alternatives. The use of such products will now not be awarded within the tool and may have a significant impact on these industries.*

AND

For any real environmental improvement to take place in the building and construction sector, it is crucial to ensure that not only PVC, but plastic materials in general, have a level playing field on which to compete with other materials. It would therefore seem reasonable to assume that competing materials are also expected to abide by guidelines similar to those in the Best Practice Guidelines for PVC in the Built Environment.

GBCA Response: The credit addresses PVC as a dominant plastic in use in the built environment in the applications targeted by the credit. The changes to the credit come as a result of many improvements in the PVC lifecycle achieved by some sectors of the PVC industry in the last decade and since the introduction of Green Star and the PVC Minimisation credit. As reported in lifecycle assessments conducted over the past decade (refer to Literature Review and Best Practice Guidelines for the Life Cycle of PVC Building Products document, available on the GBCA website) PVC products originating from best practice sources compete well against alternatives on health and environmental grounds, and there is no longer merit in the minimisation of PVC in projects or encouraging the use of alternatives.

The GBCA agrees that there is merit in addressing all products based on lifecycle assessment and will consider the implementation of such an approach in future Green Star rating tools. Where PVC products are unable to meet the Best Practice Guidelines for PVC in the Built Environment the credit will continue to encourage the use of alternatives.

Comment: *With regards to the reference to reused PVC products within the Additional Guidance section of the proposed credit, to further encourage their use, GBCA should allow reused PVC to be included in Mat-3 – Recycled content and re-used products & Materials credit (Education v.1 Tool) if it is not to be included in the PVC credit.*

GBCA Response: The GBCA agrees with this feedback. A technical clarification will be issued relating to the Mat-3 'Recycled content and re-used products & materials' credit, which as mentioned, currently excludes PVC products. The clarification will include reused PVC products in the credit.

Comment: *We understand that there have been some improvements in the manufacturing of PVC products including PVC pipe, however we believe that the relative embodied energy of different materials should be considered.*

- *HDPE pipe has a significantly lower embodied energy than other pipe materials, (FRC, Concrete, PP and PVC),*

- *The solvent used to join PVC pipe should be considered (HDPE pipe does not require solvents),*

- *The use of recycled polymers in underground pipes (or other structures) should not be encouraged due to poor structural strength, unknown long term strength and short design life. Materials must meet Australian Standards and have a long design life (100yrs+), of which the pipe made of recycled bottles has neither.*

GBCA Response: The GBCA agrees that there is merit in addressing all products based on lifecycle assessment and will consider the implementation of such an approach in future Green Star rating tools. Lifecycle analysis results quoted in the Literature Review and Best Practice Guidelines for the Life Cycle of PVC Building Products documents (available on the GBCA website) contradict this statement and confirm that PVC performs well against alternatives; this is true in the case of overall impact rather than a single criterion such as embodied energy.

Lifecycle assessments reviewed as part of the PVC Minimisation credit take into account the joining techniques used such as pipe cements.

Pipes are subject to stringent Australian standards, Standards for some non-pressure pipe applications permit the use of recycled material and these products are available on the Australian market.

Comment: *The Credit Criteria refers to the major "standard" uses of PVC. We suggest changing the word "standard" to "common" so as not to cause confusion with "Standards" that are applicable to products and to independent verification processes.*

GBCA Response: The GBCA agrees with this feedback. Changes have been made to the credit as suggested.

Comment: *How do you ensure that false claims of recycled PVC do not provide an avenue for the use of non best practice virgin PVC products?*

GBCA Response: The GBCA agrees that the exclusion of recycled content from meeting the credit requirements might provide an avenue for falsely promoting virgin PVC products as made from recycled material. The Best Practice Guidelines have been revised to require independent confirmation of recycled PVC content.

Comment: *We suggest threshold PVC content may be required rather than saying the percentage of PVC in the product is irrelevant. If a product contained less than, say, 5% PVC would it still be considered a PVC product? It is possible that some resilient flooring products traditionally called "vinyl" may have very low levels of PVC in them and other products such as carpet with a PVC backing may not be considered as "PVC products" although the PVC makes up more than 5% of the product. Also if a product was "recycled PVC", use of more than 5% (or whatever the threshold is) virgin PVC in it means the Credit ought to apply (to the virgin component).*

GBCA Response: Whilst the GBCA recognises the merit behind this concept, it has not implemented this recommendation at this stage. Such a change may over-complicate the revised credit, and may provide an avenue for some manufacturers to avoid the requirements of the credit. The GBCA will monitor the situation and may reconsider this feedback as the industry evolves. PVC flooring products have been included in the credit criteria at this stage regardless of PVC content.