Materials and Resources

MR prereq 1 (Storage & Collection of Recyclables)

MR p1.1

California Forestry Association

Arkansas Forestry Association

This credit is not important to the sustainability of the built environment because it provides materials with recycled content an easier and more generous credit opportunity than materials made from renewable resources even though the latter are generally more environmentally friendly. Most steel products will qualify for these 2 credits right out of the furnace, even with the higher recycled content requirements recently approved in LEED-NC v2.2. According to the Steel Institute, the average post-consumer recycled content in steel ranges from 23% (steel produced in Basic Oxygen Furnaces) to 59% (steel produced in Electric Arc Furnaces). Thus, this credit does nothing to "raise the bar" that USGBC has identified as a goal. Factoring in pre-consumer recycled content increases these percentages. Furthermore, this credit presumes that the manufacturing and use of recycled content material is always a net positive for the environment, which may not be the case. For example, collecting, refining and re-manufacturing using recycled materials could require more energy than would be consumed to manufacture without recycled

Renewability offers at least as much, if not greater, environmental benefit than does recycling, as renewable materials do not exhaust finite resources and require less energy to produce. By favoring recycling of non-renewable materials over renewable resources, this credit reduces the economic incentive for maintaining and enhancing renewable resources such as forests. This credit can be improved by extending it to include renewable materials. Renewable materials such as wood products store huge amounts of carbon that offset carbon dioxide emissions from fossil fuel use. Moreover, using renewable building materials provides an economic incentive for maintaining lands in forest use (as opposed to development) which, in turn, enhances water quality and wildlife habitat. The hard reality is that if steel studs with 20% post-consumer content receive a credit, but wood studs do not, at the margin, fewer forests will be managed sustainably since steel from non-renewable resources (and with high-energy content) will displace wood.

This should become a "Renewable and Recycled Content Credit." The title and scope of the credit should be changed, accordingly. One point should be awarded for materials manufactured from renewable, as compared with non-renewable, content. Since even a small use of renewable materials translates into significantly lower environmental impacts, the credit should apply if the "Renewable Content Value" is 10%.

Response

Thank you for the comment, however, it is not clear how this comment is relevant to this prerequisite.

MR p1.2

PALCO

This credit gives the steel industry automatic points and doesn't encourage them to improve their performance. The Steel Institute indicates that the post consumer recycled content ranges from 23% to 59%. It doesn't necessarily follow that recycling is more energy efficient. See Lippke, Bruce et al. Forest Products Journal, June 2004. CORRIM: Life-Cycle Environmental Performance of Renewable Building Materials. This analysis makes the point that renewable resources such as wood products are more environmentally friendly as a whole.

Add renewability to this credit. Give one point for renewability and one for recycling. Encourage the use of wood and provide an economic reason for maintain working forests rather than the great forest sustainability problem of forest conversion into ranchettes occurring in the US. Include renewable materials in this credit.

Change to Renewable and Recycled Content Credit Change the scope Give credit if renewable content value is 10% or greater.

Response

Thank you for the comment, however, it is not clear how this comment is relevant to this prerequisite.

MR c 1 (Building Reuse, Maintain Existing Walls, Floors & Roof)

MR c1.1

ACEEE

This is the category of "Be careful what you ask for: you might get it." Credit for preserving exterior walls may lead to decisions that preclude effective insulation (important particularly for smaller structures) and daylighting, for example. Existing roof decking could be a disaster in some cases. Do we want to give incentives for these things? Do we want to encourage people NOT to replace worn out plumbing lines? NOT to redesign air distribution systems for efficiency? It is my understanding that the energy use over the life of the structure is about 10 times the embodied energy. If so, should not encourage actions that are short-sighted environmentally. Concept good, but not sure about execution.

This may require some scenario-building or case studies; the answers are not obvious to me. I am pleased that windows are excluded, since almost all "used" or existing windows are obsolete (or historic)
can't do until concept is re-thought and fleshed out to accomplish intended goals.

Response

This credit is based on the LEED-NC 2.2 credit language. LEED-CS is the fourth Rating System developed by USGBC since 2000. As LEED Rating Systems are developed and implemented, USGBC is attempting to produce documents that are uniform across common credit categories where appropriate.

LEED-CS covers many issues identical, in scope both building scope and market maturity, which are addressed by the recently approved LEED-NC v2.2 Rating System. LEED-CS is being released only a short period of time after the release of LEED-NC v2.2 and insufficient data has been collected to indicate if changes to credits that are common among the LEED-CS and LEED-NC Rating Systems are necessary. As with all LEED Rating Systems, LEED-CS will evolve with the market, building science and technology.

MR c 2 (Construction Waste Management, Divert from Disposal)

MR c2.1

0

The 50% and 75% diversion requirements are too easy to achieve. Over 70% of LEED Certified projects, 80% of LEED Silver, 90% of LEED Gold, and 100% of LEED Platinum projects are already able to achieve MR1. Similarly, nearly half of the LEED Certified projects, over 60% of LEED Silver projects, 70% of LEED Gold projects, and 100% of LEED Platinum projects are able to achieve the second point. Additionally a number of LEED Projects have also received an innovation point for diverting 90% of construction waste from the landfill. It is appropriate to raise the bar.

Increase the diversion rate from 50% to 75% to obtain MRc 2.1 and increase from 75% to 90% to obtain MRc 2.2. The majority of projects are obtaining the credits which indicates that it is too easy to obtain and that the market has moved beyond 50% diversion of C&D waste.

Response

This credit is based on the LEED-NC 2.2 credit language. Your statistics are from a previous version of LEED-NC which has been made more stringent and will address aspects of your concern.

LEED-CS is the fourth Rating System developed by USGBC since 2000. As LEED Rating Systems are developed and implemented, USGBC is attempting to produce documents that are uniform across common credit categories where appropriate.

LEED-CS covers many issues identical, in scope both building scope and market maturity, which are addressed by the recently approved LEED-NC v2.2 Rating System. LEED-CS is being released only a short period of time after the release of LEED-NC v2.2 and insufficient data has been collected to indicate if changes to credits that are common among the LEED-CS and LEED-NC Rating Systems are necessary. As with all LEED Rating Systems, LEED-CS will evolve with the market, building science and technology.

MR c2.2

Georgia Pacific Corporation

Georgia-Pacific is of the opinion that the intent of the credit is laudable since it would divert construction and demolition debris from landfills and in some instances from incineration with low heat recovery. Thus it would potentially help increase the quantity of reclaimed materials that could be recycled. 011006

In the case of wood products and gypsum, Georgia-Pacific believes the strength of this credit will be reinforced and feasibility of reprocessing the material for recycling increases if the credit requirements stress the cleanliness (not mentioned in present text) of the reclaimed material. Likewise , the Reference Guide should have added text stressing this recommendation or requirement. 011006

The Georgia-Pacific's suggested language would be "Material reclaimed for further recycling reprocessing must be free, to the extent possible, of extraneous materials causing potential disruption or damage to the operation or equipment (e.g. nails, screws, etc.)". The LEED response MRc2.1.08 is partially acceptable because the additional text in RG would reinforce the point made above. Nevertheless, in the description of the credit, its requirements, there is room to make the suggested observation that would further impressed on those disposing and collecting the materials to observe these precautions. Also, the response lacks the clarity observed in other comments in which for the accepted comment it is said clearly that it will be incorporated in the Reference Guide. We thus assumed that for MR 2.1 and 2.2, it will be done so. Note: Because the comments in 2.2 are so similar we also assume the same response is applicable to our comments in MR 2.2. 011006

Response

Thank you for the comment. We will consider adding language to the LEED-CS Reference Guide addressing this issue.

MR c 3 (Materials Reuse)

MR c3.1

ACEEE

This should explicitly exclude credit for reusing windows, unless they are NFRC-rated (i.e, both virtually new and having very high performance) and climate-appropriate. Given the costs of moving windows, it is not wise to encourage reuse of badly-performing windows. Great loss of energy-savings potential and of design freedom.

explicitly exclude windows and fenestration from eligibility under this criterion. This is one place where sustainability and energy consumption collide: almost all existing windows are energy hogs; they should be discarded in extensive renovations, and never used in new construction.

Windows, mechanical, electrical and plumbing components and specialty items such as elevators and equipment shall not be included in this calculation.

Response

The comment is appreciated. However the requirements of meeting the LEED prerequisite EA p2, Minimum Energy Performance will cover the performance of exterior windows, new or reused.

MR c 4 (Recycled Content)

MR c4.1

Missouri Forest Products Assn

Hardwood Federation

PALCO

Composite Panel Association

Simpson Investment Company

American Forest & Paper Association

International Paper

Canadian Wood Council

APA-The Engineered Wood Association

BC Market Outreach Network

Huber Engineered Woods LLC

LP

Weyerhaeuser

Anthony Forest Products Company

California Forestry Association

This credit is not important to the sustainability of the built environment because it provides materials with recycled content an easier and more generous credit opportunity than materials made from renewable resources even though the latter are generally more environmentally friendly. Most steel products will qualify for these 2 credits right out of the furnace, even with the higher recycled content requirements recently approved in LEED-NC v2.2. According to the Steel Institute, the average post-consumer recycled content in steel ranges from 23% (steel produced in Basic Oxygen Furnaces) to 59% (steel produced in Electric Arc Furnaces). Thus, this credit does nothing to "raise the bar" that USGBC has identified as a goal. Factoring in pre-consumer recycled content increases these percentages. Furthermore, this credit presumes that the manufacturing and use of recycled content material is always a net positive for the environment, which may not be the case. For example, collecting, refining and re-manufacturing using recycled materials could require more energy than would be consumed to manufacture without recycled

Taking a life cycle assessment approach to assessing environmental benefits and impacts, the renewability of a building material is at least as important, if not more so, than recycled content. For example, research by the Consortium for Research on Renewable Industrial Materials [CORRIM] confirmed that steel and concrete use considerably more energy than does wood, and that most of the energy used to build homes is used during the manufacture of the building materials (Lippke et al 2004). The large amounts of energy consumed in the making of concrete and steel translates into high environmental costs in terms of greenhouse gas emissions and pollution. Renewable resources, like trees, that use the sun as their main energy source are by their very nature uniquely "green" and provide environmentally positive value. Thus, more credit should be given to projects using renewable materials such as wood than to other building materials that require so much non-renewable energy and have such a negative impact on the carbon footprint.

Renewability offers at least as much, if not greater, environmental benefit than does recycling, as renewable materials do not exhaust finite resources and require less energy to produce. By favoring recycling of non-renewable materials over renewable resources, this credit reduces the economic incentive for maintaining and enhancing renewable resources such as forests. This credit can be improved by extending it to include renewable materials. Renewable materials such as wood products store huge amounts of carbon that offset carbon dioxide emissions from fossil fuel use. Moreover, using renewable building materials provides an economic incentive for maintaining lands in forest use (as opposed to development) which, in turn, enhances water quality and wildlife habitat. The hard reality is that if steel studs with 20% post-consumer content receive a credit, but wood studs do not, at the margin, fewer forests will be managed sustainably since steel from non-renewable resources (and with high-energy content) will displace wood.

This should become a "Renewable and Recycled Content Credit." The title and scope of the credit should be changed, accordingly. Consistent with the credit for recycled content, a second point should be given if the "Renewable Content Value" exceeds 20%.

Response

The USGBC is in the process of comprehensively addressing how Life Cycle Assessment will be incorporated into LEED. This issue is not particular to LEED-CS, which will be modified according to this ongoing research when complete. For information on the LCA into LEED project, please contact, leedinfo@usgbc.org.

MR c4.2

Treated Wood Council

This credit presumes that the manufacturing and use of recycled content material is always a net positive for the environment, which may not be the case. For example, collecting, refining and re-manufacturing used recycled materials could require more energy than would be consumed to manufacture without recycled content, when one considers the additional collection/transportation costs in the final product. An even greater weakness of this credit is that it fails to recognize that building materials made from renewable resources provide as much or greater environmental benefits than recycled materials. Renewability offers at least as much, if not greater, environmental benefit than does recycling, as renewable materials do not exhaust finite resources and require less energy to produce. This credit can be improved by extending it to include renewable materials. Renewable materials such as wood products store huge amounts of carbon that offset carbon dioxide emissions from fossil fuel use. Wood products recycle carbon dioxide, and are the only construction materials to do so. TWC suggests that this section be revised and re-titled "Renewable and Recycled Content Credit", with the scope amended accordingly. MR Credit 4.2 R

with the scope amended accordingly. MR Credit 4.2 Recycled Content, 20% (post-consumer + 1/2 pre-consumer) Here again, this credit presumes that the manufacturing and use of recycled content material is always a net positive for the environment, which may not be the case. As stated in 4.1 above, this credit can be improved by extending it to include renewable materials.

Response

The USGBC is in the process of comprehensively addressing how Life Cycle Assessment will be incorporated into LEED. This issue is not particular to LEED-CS, which will be modified according to this ongoing research when complete. For information on the LCA into LEED project, please contact, leedinfo@usgbc.org.

MR c4.3

Georgia Pacific Corporation

The credit, in Georgia-Pacific's opinion, would be further biased against wood products by the increase in the percentages from the existing standard. In general, wood products would be at a disadvantage because of the realities of different industry practices with other competing materials. Likewise, maintaining a penalty for the pre-consumer or post-industrial quantity is not only contrary to existing practice and international standards definitions but it creates a disincentive in many industry sectors such as forest products in which the interconnectivity of different product operations and processes generate substantial quantities of post-industrial or pre-consumer reclaimed materials. This is very much unique to our industry and as said earlier, the environment does not distinguishes between post and pre-consumer recovered waste. Such sustainable practices of the forest industries must be recognized and factored in the credit. This characteristic has been identified and widely recognized by domestic and international industry association as indicated in the following reference (TAPPI Press "Life Cycle Inventory

In Georgia-Pacific's opinion, the percent recycled content is unnecessarily restricted by limiting the pre-consumer or post-industrial percentage to half credit. This is an unnecessary restriction that is contrary to the invoked standard (ISO 14021) which makes clear that "Only pre-consumer and post-consumer materials should be considered as recycled content, etc." The Federal Trade Commission in its guidelines on environmental claims also makes the point to consider total recycled content as the sum of pre and post, without qualifications or penalizing factors. We still would have preferred the citation of the FTC guidelines jointly with the ISO standard rather than the ISO standard alone. Georgia-Pacific is also concerned that in setting such high level we may be disturbing the capability in the marketplace for proper registration. We do not know of a consensus or verified statistic that supports this change. If not feasible, it would discourage rather than encourage the use and practice of recycled products. 011006

In Georgia Pacific's opinion, the understanding and subsequent interpretation of this credit will be very improved if some needed clarifications and corrections are made. First, the title for both MR 4.1 and MR 4.2, should be modified since the text "Recycled Content - X% (post-consumer plus ¢ pre-consumer) gives the erroneous perception that these percentages are required levels for the product when indeed the percentage in the credit is based on the total value of the materials in the project. This is clear in the example and calculation in the Reference Guide but not in the standard itself. A final text should simply refer to X % of the total value of the materials in the project. The restriction to consider only half of the post-industrial recycled content is not justified by experience or standards and regulations. The ISO 14021, in its clause 8.2.1.1 addressing recycled content makes clear total recycled content is composed of post and pre, without qualifications. Those corrections should be introduced where pertinent. Georgia-Pacific has indicated and substantiated why such "halving" penalizes the forest products sectors that enjoys a high degre

Response

The USGBC is in the process of comprehensively addressing how Life Cycle Assessment will be incorporated into LEED. This issue is not particular to LEED-CS, which will be modified according to this ongoing research when complete. For information on the LCA into LEED project, please contact, leedinfo@usgbc.org.

MR c 5 (Regional Materials)

MR c5.1

California Forestry Association

Anthony Forest Products Company

LP

Huber Engineered Woods LLC

APA-The Engineered Wood Association

BC Market Outreach Network

Canadian Wood Council

International Paper

American Forest & Paper Association

Simpson Investment Company

Composite Panel Association

Hardwood Federation

Missouri Forest Products Assn

This credit is not important to the built environment because the geographic sourcing of materials is at best a weak indicator of relative environmental impacts (due to energy use in transport), and at worst provides a perverse incentive to use less environmentally friendly materials produced within the arbitrary geographic radius. This is yet another example of bias against wood products. The stipulated distance (i.e. 500 miles) is entirely arbitrary, and, by itself, has no environmental or economic justification. The stipulated percent of material extracted, processed and manufactured "regionally" is also arbitrary. A far more environmentally benign product manufactured just outside the range would fail to meet the credit requirement. This credit represents an antiquated prescriptive approach that cannot achieve any meaningful environmental (or economic) objective. This credit could actually harm local communities by violating basic economic principles related to community development and production efficiencies. Communities specialize in producing goods and services in which they have a comparative advantage

Purchasing regional materials is not necessarily more sustainable than importing sustainable products. We understand that these credits were introduced to increase the demand for building materials and products extracted and manufactured within a given region, supporting the use of regional resources and reducing environmental impacts resulting from transportation. While these are reasonable objectives, we believe they should not be pursued in isolation of other objectives. For instance, this credit does not recognize that communities grow efficiently by exporting what they can produce efficiently in exchange for importing what others produce efficiently. Purchasing an environmentally friendly product from a long distance can be "greener" than purchasing a polluting product from a short distance. Whether purchasing a local product is more sustainable than purchasing a well-travelled one is conjecture unless the decision is subject to a life-cycle filter. In addition, the "500 mile" limit is entirely arbitrary and has no environmental basis. Again, using life-cycle analysis would produce a far more scientific evaluation

This credit should be abolished as currently framed. As discussed, transport distances bear little relationship to the environmental efficiency or performance of building materials, or the energy efficiency related to their use in construction. The nature of the distribution system for goods and services in our economy forces the efficient allocation of energy resources. Imposing a materials requirement (or incentive) that discriminates against products or services produced outside a selective and arbitrary geographic circle actually distorts efficiencies of production and transport. Some competing building materials use less energy per unit of production but are typically transported long distances from rural areas. Others are produced most efficiently where hydro-electric or bio-based energy predominates - cleaner forms of energy - but might also be transported farther than 500 miles. This credit could be reconsidered at a future date if and when LCA is incorporated into the LEED process.

Since there is no verifiable environmental justification for a regional/local criterion of this kind, this credit as currently formulated should be eliminated.

Response

The USGBC is in the process of comprehensively addressing how Life Cycle Assessment will be incorporated into LEED. This issue is not particular to LEED-CS, which will be modified according to this ongoing research when complete. For information on the LCA into LEED project, please contact, leedinfo@usgbc.org.

MR c5.2

Atelier Ten

We appreciate the goal of this credit in attempting to reduce the huge energy use associated with transportation of construction materials. The changes to the credit in LEED CS (and LEED v2.2) do a better job of crystallizing the credit intent than in version 2.1. However, we are unsure how this credit would ever be documented. Manufacturers do not seem to reliably track the location of final manufacture, let alone the source of all the raw materials. We understand that the adoption of a new LEED standard will push manufacturers to track this information, but this change seems premature, as industry has not yet caught up to the reporting requirements for this credit in LEED version 2.1. We are unsure how to address this documentation concern without reverting to the old version of the credit, which accounted for only the final point of manufacture.

Response

This LEED-CS credit is aligned with LEED-NC 2.2. While we understand your concern, LEED is intended to drive change in the market. This documentation and the information behind the documentation will work toward further market change.

MR c5.3

Weyerhaeuser

The language should provide a more visible linkage of this credit to its energy-saving benefits. The current language for the "intent" section is reasonable. However, the language in the "requirements" section chooses to oversimplify the issue by assuming that DISTANCE OF TRAVEL is the sole indicator of the environmental impacts due to transportation. This prescriptive approach violates LEED policy in two ways. First, it violates the "mission statement" of LEED, as provided in the LEED Policy Manual, which directs the use of PERFORMANCE CRITERIA, not prescriptive simplifications ("LEED encourages and accelerates global adoption of sustainable green building and development practices through the creation and implementation of universally understood and accepted standards, tools and performance criteria.") Second, it violates the directive in the LEED Policy Manual stating that LEED committee discussions and decisions should be grounded on technical and scientific decisions of the highest quality.

The intent of this objective should be clearly articulated in terms of the sustainability and environmental objectives it wants to achieve. Under the current system, locally produced brick made from strip-mined uranium ore would qualify for the 2 LEED credits for regional materials! If applied in its current form, the result of this credit would be the encouragement of the

To reiterate, the intent of this objective should be clearly articulated in terms of sustainability and environmental objectives, specifically fuel saving. While the distance of travel can still be included, the requirements must be expanded to permit alternative means of fulfilling the objective. This solution would not require the addition or deletion of LEED credits. It would simply expand the credit to cover alternatives that reflect compliance with its true intent. A less desirable alternative that would correct some of the defects in this credit would be the addition of the following language: "Alternatively, materials that do not meet these precise requirements are permitted to be awarded this credit if verifiable data is provided showing that the alternatives meet or exceed the specified intent of the credit."

Response

The proposed credit language does not violate USGBC policies and procedures governing development and implementation of LEED in any way.

The characterization of the requirements for LEED development as exclusive of ‘prescriptive’ criteria is incorrect based to the LEED Foundations Document Product Development Handbook. There are numerous examples of ‘prescriptive’ LEED credits and prerequisites which can be cited to support this fact. Additionally, while the commenter obviously disagrees with the conclusions reached for the structure of this credit, the intent is clearly served by the requirements and sufficient credible data documenting transport impacts associated with materials selection is available to justify the existence of this credit.

MR c5.4

Eggers Industries

The modification to combine harvesting and manufacturing within 500 miles of the jobsite basically eliminates this credit for most materials. The result is that so few manufacturers can harvest and manufacture within the 500 miles this credit will no longer be as effective as it was when harvesting ws a separate credit. This significantly reduces the jobsites that can achieve this credit so why look for regional materials any longer. I will price shop from manufacturers outside the 500 miles or worse outside the US.

As I commented on the LEED-NC. Leave the manufacturing and harvest credits separate.

Response

This LEED-CS credit is aligned with LEED-NC 2.2. While we understand your concern, LEED is intended to drive change in the market, reduce the impact of transportation, and encourage the use of regional materials

MR c5.5

PALCO

Use of regional materials should be encouraged. However, in some cases, for example, forest lands may grow wood in only specific regions of the country and some accommodation should be given to this renewable resource by increasing the distance from 500 miles to a thousand. Many rural communities do not have distribution options and alternative resources to use.

Base transportation difference on geographic and product relationships not on an arbitrary difference. Draw a relationship between energy use in production...the higher the energy consumption the shorter the distance for transport, renewability, and pollution. More energy in production and greater pollution < 500 miles in the regional distance. Less energy and pollution > than 500 miles for the regional credit.

Response

This LEED-CS credit is aligned with LEED-NC 2.2. While we understand your concern, LEED is intended to drive change in the market, reduce the impact of transportation, and encourage the use of regional materials

MR c5.6

Georgia Pacific Corporation

Georgia-Pacific has been troubled on this credit since its inception because it is not clear to us what sustainability aspect it tries to protect or the basis for establishing a given radius mileage. The 300 miles radius has been rectified previously in NCv2.2 bringing it to 500 miles. This we welcomed but unfortunately, we need to object to the linkage of the manufacturing site to the extracted/harvested /recovered requirements now in the June 2005 version. The resources, trees and rock minerals, are where they are and this makes the linkage with the manufacturing location on a regional basis improper. It will be eventually a disincentive to locate the manufacturing location close to the customer. . We do not understand or have seen the reasons to delete the flexibility provided by different mode of transportation, rail and water. Thus it is our recommendation to continue with the present radius of 500 miles, accept the additional changes and flexibility in mode of transportation proposed for these credits and decouple the manufacturing location from the extracted/harvested/recovered considerations. That will strengthen the credit and ai

Georgia Pacific believes that the improvements for this prerequisite are very much included in the proposal in the addition of a new modes of transportation and mileage and the ability for combination of percentages from different mileage categories. It would be further improved by maintaining the original 500 miles from manufacturing location and decoupling manufacturing location from the extracted/harvested/recovered locales. 011006

Georgia-Pacific's request is that in the requirements section the following be considered, a) the standard maintain the 500 miles, b) maintain 10% and disregard the 20% credit, c) maintain the flexibility provided in earlier draft with the alternatives in mode of transportation, and d) decouple manufacturing from extracted/harvested/recovered areas. 011006 NOTE for same reasons presented before, these comments pertain both 5.1 and 5.2 since there is no known way to us from the website to obtain separate labeled forms

Response

This LEED-CS credit is aligned with LEED-NC 2.2. While we understand your concern, LEED is intended to drive change in the market, reduce the impact of transportation, and encourage the use of regional materials

MR c5.7

Treated Wood Council

MR Credit 5.1 Regional Materials, 10% extracted, processed and manufactured regionally The stipulated distance (i.e. 500 miles) is entirely arbitrary, and, by itself, has no environmental or economic justification. The stipulated percent of material extracted, processed and manufactured "regionally" is also arbitrary. This credit represents an antiquated prescriptive approach that cannot achieve any meaningful environmental (or economic) objective. Since there is no verifiable environmental justification for a regional/local criterion of this kind, this credit as currently formulated should be eliminated. MR Credit 5.2 Regional Materials, 20% extracted, processed and manufactured. Noting the same comments as in 5.1, this credit as formulated also should be eliminated.

Response

This LEED-CS credit is aligned with LEED-NC 2.2. While we understand your concern, LEED is intended to drive change in the market, reduce the impact of transportation, and encourage the use of regional materials

MR c5.8

ACEEE

This is a noble concept, but may be very complex in practice: Many building products are manufactured products with components and materials with quite different origins. Consider windows as an example. As I understand it, a few manufacturers produce the "insulated glass units," (IGUs, which are sealed glass assemblies). Shipment distances might be quite long. A very large number of "window manufacturers" bring together the components (IGU, hardware, frame materials). Could this be used to disadvantage a high-performance, low-maintenance fiberglass pultrusion relative to a locally-sourced but higher maintenance wood frame, and is that what we want? Is a toilet no longer local/regional if it uses some hypothetical high performance imported flush mechanisms? Would we know whether "glue-lams" or other manufactured wood products have most of their value from local wood + far-away glue and machinery? Far-away wood shipped in for processing, which means shipping waste-to-be? I like the idea, but responsible and fair implementation may be very difficult.

To avoid driving users into a frenzy, I wonder if this should be studied further, for version 2? It may be that I am just ignorant, but this seems like an area that would generate more controversy and unprovable assertions than it is worth.

(drop and restudy?)

Response

This LEED-CS credit is aligned with LEED-NC 2.2. While we understand your concern, LEED is intended to drive change in the market, reduce the impact of transportation, and encourage the use of regional materials

LEED-CS is the fourth Rating System developed by USGBC since 2000. As LEED Rating Systems are developed and implemented, USGBC is attempting to produce documents that are uniform across common credit categories where appropriate.

LEED-CS covers many issues identical, in scope both building scope and market maturity, which are addressed by the recently approved LEED-NC v2.2 Rating System. LEED-CS is being released only a short period of time after the release of LEED-NC v2.2 and insufficient data has been collected to indicate if changes to credits that are common among the LEED-CS and LEED-NC Rating Systems are necessary. As with all LEED Rating Systems, LEED-CS will evolve with the market, building science and technology.

MR c 6 (Certified Wood)

MR c6.1

Missouri Forest Products Assn

Hardwood Federation

Huber Engineered Woods LLC

Composite Panel Association

Simpson Investment Company

American Forest & Paper Association

APA-The Engineered Wood Association

Canadian Wood Council

BC Market Outreach Network

Arkansas Forestry Association

LP

Anthony Forest Products Company

California Forestry Association

Many credible forest certification systems have evolved to meet the demands of the marketplace and ensure the public the wood products they purchase come from sustainable well managed forests. In North America there are four credible forest certification programs. These include the Sustainable Forestry Initiative« (SFI), Canadian Standards Association (CSA), American Tree Farm System (ATFS), Forest Stewardship Council (FSC) and Program for the Endorsement of Forest Certification (PEFC) endorsed schemes. Giving preference to one certification program over another discriminates against the three largest forest certification programs in the U.S. and Canada. The vast majority of North American wood products are sourced from sustainably managed forests, certified to SFI, CSA or ATFS. Only a small fraction of North American wood products production comes from FSC certified forests, making it extremely difficult and frustrating for designers/architects to obtain qualifying materials. Crediting only FSC also discriminates against the 10 million small family forest landowners that own 60% of the productive forest land in the U.S. The ATFS administers a certification program for family owned forests and in fact, is the

The USGBC should look at the concept of forest certification for market transformation, and not get involved in which certification program is better or give preference to a single program. This credit must recognize other sustainable forestry certification systems along with FSC. There are several valid, credible, and scientifically supported forest certification programs in the United States and Canada being implemented on millions of acres of forestland. Over the last few years, several studies were released by independent organizations like Metafore, as well as the United Kingdom Government (UKG), comparing the major forest certification programs. Both Metafore and the UKG concluded that SFI and FSC serve to expand the practice of sustainable forest management. In fact, in the UKG assessment conducted by Proforest, the SFI program scored higher than any other scheme, including the FSC. The SFI« program is based on a rigorous standard and certification process that is controlled by an independent Sustainable Forestry Board (SFB). Unlike other certification programs, the SFI program has a strict separation between standard setting and accreditation of certifying bodies. Recognized international protocols (e.g., ISO) for audi

Change MR 6 to read as follows: Use a minimum of 50% of wood-based materials and products, which are certified in accordance with the Forest Stewardship Council's (FSC) Principles and Criteria, Sustainable Forestry Initiative« (SFI), Canadian Standards Association (CSA) Z809 Sustainable Forestry Management Standard, American Tree Farm System (ATFS), Forest Stewardship Council (FSC) or Program for the Endorsement of Forest Certification (PEFC) for wood building components. These components include, but are not limited to, structural framing and general dimensional framing, flooring, sub flooring, wood doors, and finishes. The SFI program is the most widely subscribed to system and has the necessary institutional framework to maintain its integrity and consistency. Providing credit for only FSC certification grants that program a monopoly that serves to ignore the fundamental objective of expanding and rewarding the practice of sustainable forest management. The credit should be given for the use of materials derived from credible certified sources. These credible certified sources should include the SFI program, PEFC, CSA, ATFS or FSC.

Response

This issue was discussed extensively by the MR Technical Advisory Group, LEED Steering Committee, and USGBC staff. The credit language will be maintained to allow the USGBC's current work coming out of the Wood Summit to take place to inform a solution for revising this credit.

MR c6.2

Treated Wood Council

MR Credit 6 Certified Wood Many credible certification systems have evolved to meet the demands of the marketplace for independent certification of conformance to a recognized sustainable forestry management program. In North America these programs include the Sustainable Forestry Initiative« (SFI), Canadian Standards Association (CSA), American Tree Farm System (ATFS), along with the FSC. Crediting only FSC also discriminates against the 10 million small family forest landowners that own 60% of the productive forest land in the U.S. Preference for a single certification system discriminates unfairly and inappropriately, and should be eliminated. General Comments TWC would like to make three additional

Response

This issue was discussed extensively by the MR Technical Advisory Group, LEED Steering Committee, and USGBC staff. The credit language will be maintained to allow the USGBC's current work coming out of the Wood Summit to take place to inform a solution for revising this credit.

MR c6.3

PALCO

Forest certification systems based upon the Montreal Accords criteria for sustainability should be included in this credit. Unfortuneately there is a great amount of misinformation being promoted about the different systems (partly as a marketing ploy) and partly because people who tend to support one system know little or nothing about the others. The growing trend is for public forest managers and for large forest management companies to receive certification in both systems commonly found in the US. Similarly this would leave out smaller forest certification schemes, such as the oldest the American Tree Farm System, and some of the international schemes. Frankly SFI Standards and Program has now been accepted internationally by the European Program for Endorsement of Certification which requires a stringent auditor protocol...Having worked in both systems internationally and in the US and having taught in both systems for this company...I can personally testify that: (1) all forest certification systems have improved forest management, (2) each system embraces the Montreal Criteria, and (3) each has some problems. For example, look at the Rainforest Organization out of London, Englands comments about FSC certification processe

Give credit to all forest certification programs that embrace the Montreal criteria, have specific auditor and reporting requirements. Give credit to forest certification programs that embrace, for example, the ISO auditor protocols i.e. SFI and ATFS. Environmental groups, mainstream academics, and the industry are supporting SFI, ATFS, CSA and ISO certification programs. Certification works and reward the companies that make the effort to qualify under these programs as well as FSC. SFI is endorsed by labor unions, the World Summit on Sustainable Development, and the UN Environmental Program and the International Chamber of Commerce. If this is going to be a workable system then it should recognize what the rest of the business and environmental community recognizes..ie. certification comes in different forms and programs but fundamentally works and should be rewarded. BE MORE INCLUSIVE OF THESE PROGRAMS SFI, ATFS, CSA AND ISO!

The minimum should be 50%, include all of these programs, SFI, CSA, ATFS, PEFC and FSC. Promote as much land being managed under sustainable forest management practices as possible.

Response

This issue was discussed extensively by the MR Technical Advisory Group, LEED Steering Committee, and USGBC staff. The credit language will be maintained to allow the USGBC's current work coming out of the Wood Summit to take place to inform a solution for revising this credit.

MR c6.4

Hayward Lumber

In requiring an independent, third-party verification for forestry standards, the USGBC has done well to promote truly sustainable forestry. In specifying FSC, the USGBC maintains a true leadership position on this issue. LEED projects are directly responsible for much of the growth in both demand and FSC forest certifications in the U.S. The FSC is currently the only forestry certification program that guarantees a positive environmental, social and economic impact from the activities of the building industry.

Response

Thank you for your comment.

MR c6.5

Georgia Pacific Corporation

Georgia-Pacific continues to be disappointed by the retreat from logical and sensible changes that seemed to prevailed at a given moment in the development of NC 2.2 whereby other forest certification programs were then considered 011006

Georgia-Pacific strongly supports the recognition of, the Canadian Standards Association (CS) and Sustainable Forestry Initiative« (SFI) program management systems in this credit. Both systems have been found by independent organizations to be credible management systems in promoting and practicing sustainable forestry. The American Tree Farm System (ATFS), represents another certification system which should be included. The ATFS program is an important forest management program which provides a certification mechanism for family-owned forests in the US 011006

Georgia Pacific requests a return to the December 2004 version in NC 2.2 regarding other issues on this credit. Also it must include in the list of management systems meeting the credit requirements, based on the December 2004 language, the American Tree Farm. 011006

Response

This issue was discussed extensively by the MR Technical Advisory Group, LEED Steering Committee, and USGBC staff. The credit language will be maintained to allow the USGBC's current work coming out of the Wood Summit to take place to inform a solution for revising this credit.

MR c6.6

Forest Products Solutions

If LEED Core & Shell is supposed to be a, "Material and resources guideline for construction of a buildings core and shell,"(v 2.0 Draft p.5). Then why does the MR 6: Certified wood credit exclude wood products that are used to building a core and shell? Currently the language in the Draft on page 61 reads, "Use a minimum of 50%...FSC. These components may include, but should not be limited to, structural framing and general dimensional framing, flooring, wood doors, sub-flooring, and finishes. Only include materials permanently installed in the project." Most Core and Shell projects do not have much 'permanently installed' wood in their projects. This is important to the sustainability of the built environment because very few Core and Shell projects use wood products that are, "permanently installed in the project." Credit should be earned for those projects that use FSC certified wood whenever appropriate, whether it is a temporary or permanent application. This is important to the sustainability of the built environment because the more FSC certified wood that flows through the market the more mature the

This credit could be improved by allowing projects teams that use FSC certified wood to earn credit, even if the products were on the site temporarily. This is important to the built environment because it will better reflect the use of wood in a Core and Shell project. These products are commonly used in the building industry and awarding the use of FSC products will not only improve the built environment, but the natural environment too.

Requirements A minimum of 50% of the newly purchased wood products, must be certified in accordance with the Forest Stewardship Council's (FSC) Principles and Criteria, for wood building components including, but not limited to, pedestrian barriers, form-ply, bracing and other temporary or permanent wood products that may are used to erect the core and shell. This change is important because earning LEED credit with the use of temporary or permanent wood structures will allow the project team to tailor its use of FSC certified products better to its core and shell project; plus giving credit to those projects who have to buy new wood products for their project

Response

This LEED-CS credit is aligned with LEED-NC 2.2. This is a valuable comment and the Reference Guide will provide some guidance regarding capturing an exempliary performance credit for using temporary wood products that meet the credit requirements.

MR c6.7

International Paper

We strongly support providing extra credit for products made from wood derived from certified forests. Landowners who certify their forests pay an added cost to provide third party assurance that their products are managed in an environmentally responsible manner. Such an investment should be rewarded in the marketplace. By way of note, only 15 percent of U.S. forests are certified to any standard and most of these forests are owned by industry or the public. The majority of wood used to manufacture forest products in the U.S. comes from 10 million small family forest owners. Availability of certified wood grown in the U.S. is still limited and should be treated by USGBC accordingly. In terms of determining qualifying certification systems, and in light of how little American wood is currently certified today, we recommend that LEED adopt an inclusive policy that recognizes multiple certification schemes, rather than an exclusive policy that recognizes only a single, monopolistic certification standard. Since sustainability connotes a balance of social, environmental and economic interests, we urge that

Allow the same credit amount for SFI, PEFC, CSA and FSC. Consider providing an additional credit opportunity for ATFS and Certified Master Logger wood. Given the relatively small amount of certified wood in the U.S. market place, lower the amount of certified content needed to gain a credit.

Use a minimum of 20 percent of wood-based materials and products, which are certified in accordance with the Forest Stewardship Council's (FSC) Principles and Criteria, Sustainable Forest Initiative (SFI), Canadian Standards Association (CSA) Z809 Sustainable Forest Management Standard, Program for the Endorsement of Forest Certification (PEFC), American Tree Farm System (ATFS) or the Certified Master Logger Program for wood building components. These components include, but are not limited to, structural framing and general dimensional framing, flooring, sub-flooring, wood doors, and finishes.

Response

This issue was discussed extensively by the MR Technical Advisory Group, LEED Steering Committee, and USGBC staff. The credit language will be maintained to allow the USGBC's current work coming out of the Wood Summit to take place to inform a solution for revising this credit.

MR c6.8

Weyerhaeuser

This credit must be expanded to include SFI, CSA, and other widely accepted certification programs. Requirements for certification programs should be based on competent and reliable evidence and consensus-based criteria. Preference for a single certification system discriminates unfairly and inappropriately. Many credible certification systems exist that meet marketplace demands for independent certification of conformance to a recognized sustainable forestry management program, such as SFI, CSA, and ATFS. The vast majority of North American wood products are sourced from sustainably managed forests, certified to recognized and credible standards other than FSC, and this draft ignores that fact.

The language must be revised to either state clear, objective criteria by which certification systems will be evaluated and a fair, objective, and transparent process of evaluation, or list all certification systems that have been independently and objectively assessed in terms of relevant criteria such as re-forestation, legality, conservation of water, wildlife, and soil protection, protection of forests with exceptional conservation value, etc. If applied in its current form, the result of this credit (by limiting its applicability to one little-used certification program) would be to effectively deny ANY credit to products that, by many measures, are the best environmental choice of all building materials (i.e., renewable, sustainably-managed, carbon-sequestering, light, strong, and requiring low processing energy).

To reiterate, the language must be revised (per our response to Question 2) in order to remove potential biases from its implementation. When measured against these objective benchmarks, the credit will include all major recognized certification systems, including FSC, SFI, CSA and the American Tree Farm System. This will still allow the credit to meet its intent to "encourage environmentally responsible forest management."

Response

This issue was discussed extensively by the MR Technical Advisory Group, LEED Steering Committee, and USGBC staff. The credit language will be maintained to allow the USGBC's current work coming out of the Wood Summit to take place to inform a solution for revising this credit.

MR c6.9

Center for Teaching and Learning

I very much applaud the use of certified wood. I especially appreciate the use of FSC criteria, rather than another certification system. (To my knowledge, FSC is the most stringent, accountable, and quantifiable extant certification system.)

I suggest offering another point (or fraction of a point) for using 100% certified wood (ie, using no wood that is not FSC-certified). This would give developers a choice: Use 50% certified wood for one point, or 100% certified wood for more than one point.
The current language seems a bit ambiguous. It isn't clear whether it suggests that i) a minimum of 50% of all materials and products used in the entire project be certified wood-based; or ii) a minimum of 50% of any wood-based materials and products used in the project be certified. I assume the latter is the actual intent. In any case, the sentence could be edited for clarity. A possible alternative sentence might read: "All wood used should fulfill a minimum ratio of one part certified wood to one part uncertified wood."

Response

An exemplary performance point can be captured for 95% compliance. The credit is based on wood based material use, not all materials.

MR c6.10

Atelier Ten

Under the Requirements for the credit (page 61) it states to "only include materials permanently installed in the project." We believe all new wood products, including structural formwork, should be included in the calculation, as this is likely to increase the demand for FSC certified wood.

Response

This LEED-CS credit is aligned with LEED-NC 2.2. This is a valuable comment and the Reference Guide will provide some guidance regarding capturing an exempliary performance credit for using temporary wood products that meet the credit requirements.

END