



Expansion to Rate Non-Roof Surfaces

Annual Membership Meeting
Reno, Nevada
June 17, 2009



What does this expansion opportunity entail?

Extending the current CRRC Rating Program to rate other non-roof surfaces

- **Walls**
- **Pavement**
- **Possibly More!**

Would require a membership vote to amend the CRRC governing documents



Importance of a Non-Roof Surface Rating System

Presentations

- **Cool Walls**
 - Andre Desjarlais, ORNL
- **Cool Pavement**
 - Source: LBNL



Why Pavement?

About 40% of the surface of a typical U.S. city is paved, mostly (~90%) with asphalt concrete. The low solar reflectance of asphalt concrete—range 0.04 to 0.18—makes it hot in the sun, emitting thermal radiation into the troposphere and warming urban air.

Source: LBNL



Benefits of Cool Pavement

- Increasing the solar reflectance of 100 m² of pavement by 40 points (0.40) induces a negative radiative forcing in the global atmospheric energy balance sufficient to offset 10 t CO₂, worth \$250 at \$25/t CO₂.
- Increasing the solar reflectance of pavement also cools the urban environment, reducing the need for air conditioning, lowering peak electrical demand, and slowing the temperature-dependent formation of smog.

Source: LBNL



Upcoming Trends in Codes & Programs

California Energy Commission

Considering including walls in Title 24 2011

LEED

Currently offers credit for use of cool pavement
Sustainable Sites 7.1

Heat Island Effect – Non Roof

ASHRAE – 189.1

Draft standard includes options for SRI values for paving materials (section 5.3.2.1) and walls (section 5.3.2.2)

Mitigation of Heat Island Effect (5.3.2)



CRRC Benefits

Licensee Benefits

- Increased credibility and visibility for manufacturers of products that can be used for other surfaces
- Opportunity to participate in the test method development
- Potential to eliminate need for a competing standard or multiple rating organizations

Organization, AITL, Test Farm Benefits

- Increased revenue and visibility from expanded membership, LS & OMs, rated products



CRRC Benefits

User Benefits

- Radiative data and educational resource on non-roof surfaces
- Support the development of utility incentive programs for efficient products
- Support the development of energy savings credits in green building programs and building codes

Overall Benefit

- Increase in energy efficiency of buildings and reduction in green house gases



Expansion Plan

- Pending approval from CRRC Membership
- CRRC Strategic Planning Committee
 - Expansion to Rate Walls Action Plan
- Research non-roof surfaces, related codes & programs
- Identify funding opportunities
- Announce expansion plan & call for participants
 - Form committee of interested parties
- Determine organizational form for expansion
 - Current organization/Subsidiary/Separate organization
- Development of standards
 - Test methods & sample preparation
- Launch Rating Program



Next Steps

- Expansion will depend on feedback from the Membership (straw poll vote)
- If the Membership votes in approval:
 - Schedule and hold a formal vote in Fall 2009 to modify the CRRC Governing Documents
 - If the formal vote passes, implement Strategic Plan for expansion



Questions & Discussion



Straw Poll Vote

Please vote!

- One ballot card per organization
- Please mark your approval/ disapproval of the CRRC expanding to rate non-roof surfaces
 - If you approve of this expansion, please vote specifically in favor of walls, pavement and/or conducting research to determine which surfaces to rate