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 greenhouse 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