

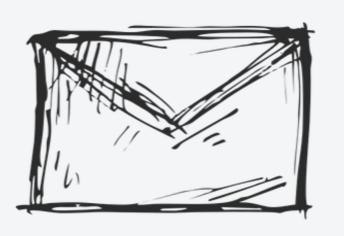
# Wall Rating Program Committee



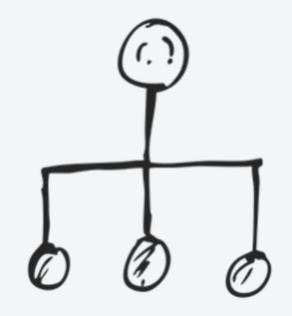
Evaluate technical issues



Develop program procedures & requirements



Guidance on program marketing



Collaborate with other committees



# Wall Rating Program Committee Roster

Voti	ng Members
Name	Affiliation
Dale McIntyre, <i>Chair</i>	Behr Paint Company
Alex Nicol	Sherwin-Williams
Howard Wiig	Hawaii State Energy Office
Ronnen Levinson	LBNL
Steve Drennan	IIBEC
Tim Hebrink	3M
Jeremy Jones	American Coatings Association
Brandon Bethke	Tempo Chemicals & Solutions
Robert Bennett, <i>Vice Chair</i>	Tex-Cote
Paige Kuplic	Axalta Coating Systems
Wallace Kesler	Dunn-Edwards
Bill Dean	Interested Individual
Rankin Jays	Polyglass USA, Inc.
Jonathan Parfrey	Climate Resolve
Ashley Garrett	ACE Laboratories
ASINEY Gairett	ACL Laboratories

Alternate Members		
Name	Affiliation	
Ginger Shi	Behr Paint Company	
David Cocuzzi	National Coil Coating Association	
Bahador Ziaeemehr	Concordia University	
Ray Fernando	California Polytechnic State University	
Neal Johnson	IIBEC	
Evan Montanez	Cool Additives Technology	
Suzanne Chang	American Coatings Association	
Vacant		
Eric Brown	Tex-Cote	
Farhan Ansari	Dow	
Chris Wessels	Dunn-Edwards	
Vacant		
Vacant		
Neetu Jain	Global Cool Green Cities Foundation	
Rich Slomko	Atlas Material Testing Technology	



# Committee Liaison Update

Committee Liaison
 Beth James-Bourgeois

Committee Support
 Sarah Schneider





# Key Activities Since 2024 Annual Meeting

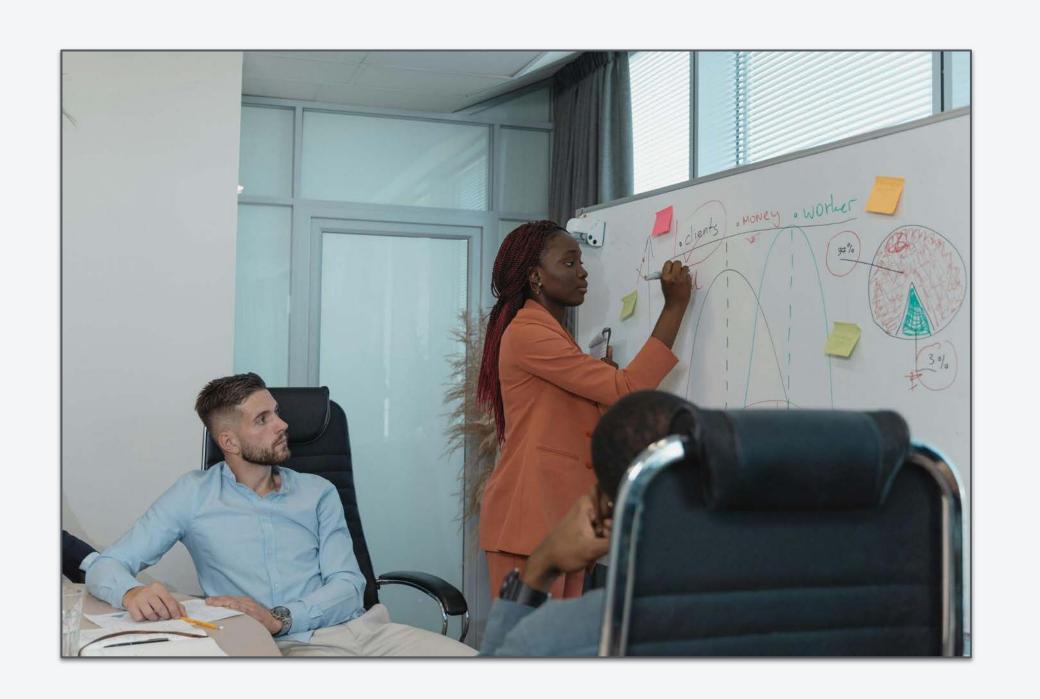
Recommended various program changes

Implemented WRP Marketing Plan



# Marketing Plan Updates

- Internal marketing plan developed
- Outlines tasks for pursuing four strategies
- Reviewed and updated regularly





# Progress on WRP Marketing Goals

## Goal 1

25 Wall Licensees by December 2025

Goal 1			
Licensees	Goal	Progress	Progress Bar
13	25	52%	

### Goal 2

200 Rated Products by December 2025

Goal 2			
Products	Goal	Progress	Progress bar
150	200	75%	

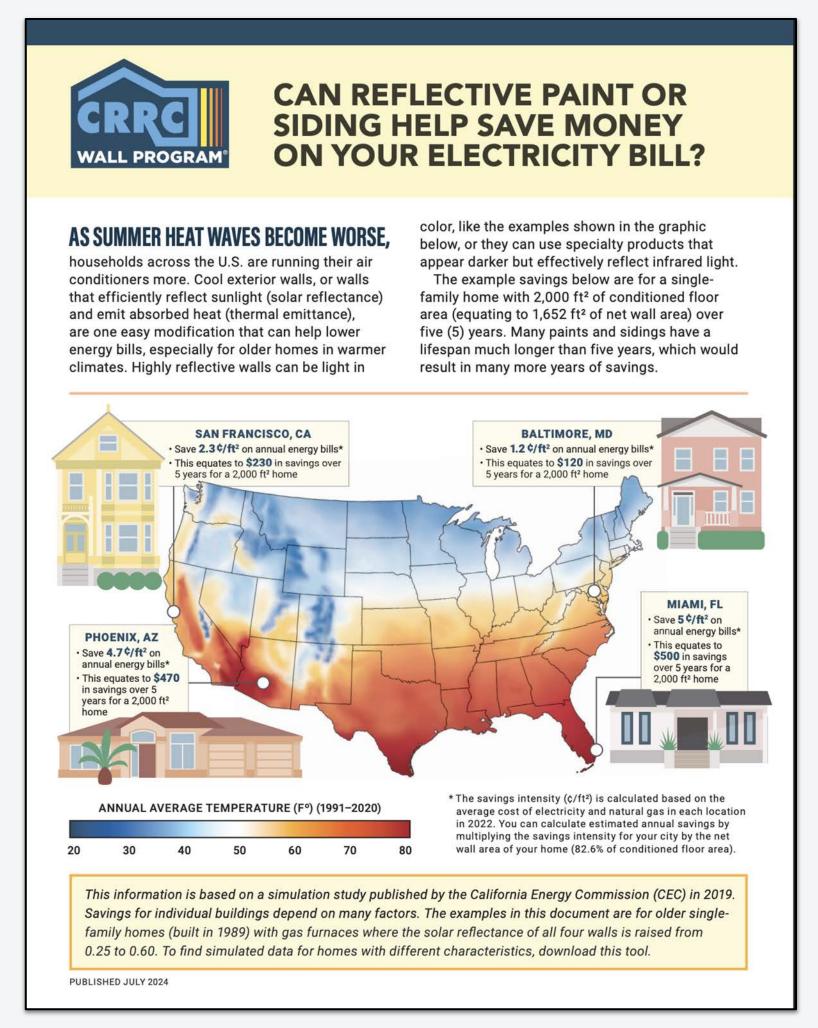


# Progress on WRP Marketing Goals

### Goal 3

Create educational document about energy savings





### FAQ

### Are cool exterior walls only white?

No! The wall colors shown in the graphic on page 1 are just a few examples of shades that can be highly solar reflective. Darker colors that use infrared-reflective pigments can also have high solar reflectance.

#### Are cool exterior walls expensive?

Many cool products are comparable in cost to traditional products. For example, lighter colors of conventional paints that do not contain infrared-reflective pigments are usually the same price as darker colors. Costs for specialty products that use infrared-reflective pigments will vary.

### How do I find the solar reflectance of a wall product?

Visit the CRRC Rated Wall Products Directory for third-party verified solar reflectance and thermal emittance data for wall products.

### My location or building type is not listed here. How can I find potential energy cost savings?

Download the Cool Surface Savings Explorer and follow the instructions in Appendix P (page P-44) of the CEC report.

### Cool colors can be vibrant, too!

Here are some examples of the effect in the visible spectrum of increasing a surface's solar reflectance from 0.25 to 0.60:



### Do cool exterior walls do anything else?

Yes! Cool exterior walls help lower indoor and outdoor temperatures, making homes and cities more heat resilient. If you don't have A/C or experience a power outage, they can help your home stay cooler and safer when it's hot out. They can also help combat the urban heat island effect. Learn more about how cool exterior walls can increase heat resilience here.



To learn more, visit us at https://coolroofs.org or contact info@coolroofs.org.

To get updates directly in your feed, follow the CRRC on Instagram, X, or LinkedIn.



THE ANNUAL COST SAVINGS INTENSITIES IN THIS DOCUMENT were calculated using data from the LBNL Cool Surface Savings Explorer (Explorer) and local electricity and natural gas price data from https://www.eia.gov. The data in the Explorer are the results of simulations and calculations performed as part of the CEC-funded project: Solar-Reflective "Cool" Walls: Benefits, Technologies, and Implementation. While this document is believed to contain correct information, neither the CRRC, nor any of its employees, makes any warranty, express or implied, or assumes any legal responsibility for the accuracy, completeness, or usefulness of any information, apparatus, product, or process disclosed, or represents that its use would not infringe privately owned rights.



Strategy 1: Prioritize presentations at national and regional events for architects and design professionals

- Continuously pursuing opportunities
- Recent in-person and virtual presentations to architecture and design community

















# Strategy 2: Explore ways to support cool exterior wall demonstration projects

- Participation in U.S. DOE Cool Surfaces
   Deployment Plan
- Exploring opportunities to support or lead demonstration projects
- Raising awareness of "cool murals"
  - Featured in 2025 Greenbuild session proposal
  - Relationships with cool mural artists
  - Mention in presentations, interviews, etc.



Beat the Heat Mural at Fernangeles Elementary School

Photo Credit: Kristy Sandoval



Strategy 3: Raise the profile of the CRRC as an informational resource for municipalities with an interest in heat action

- Created slide deck for municipalities and utilities interested in learning about cool exterior walls
- Meet with entities on an individual basis when requested





# Strategy 4: Increase accessibility of existing data/studies about the impacts of cool exterior walls

- Developed guide for using the LBNL Cool Surfaces Savings
   Explorer to estimate potential energy cost savings for specific buildings and climates
  - Currently housed internally, but may be turned into a public-facing resource in the future
- CRRC Education Committee project to develop CRRC
   Resources Microsite, which will include an up-to-date database of cool surfaces research
  - Expected launch date January 2026



# Key Activities for Late 2025 and 2026

Provide input on Validation Testing Program for rated wall products

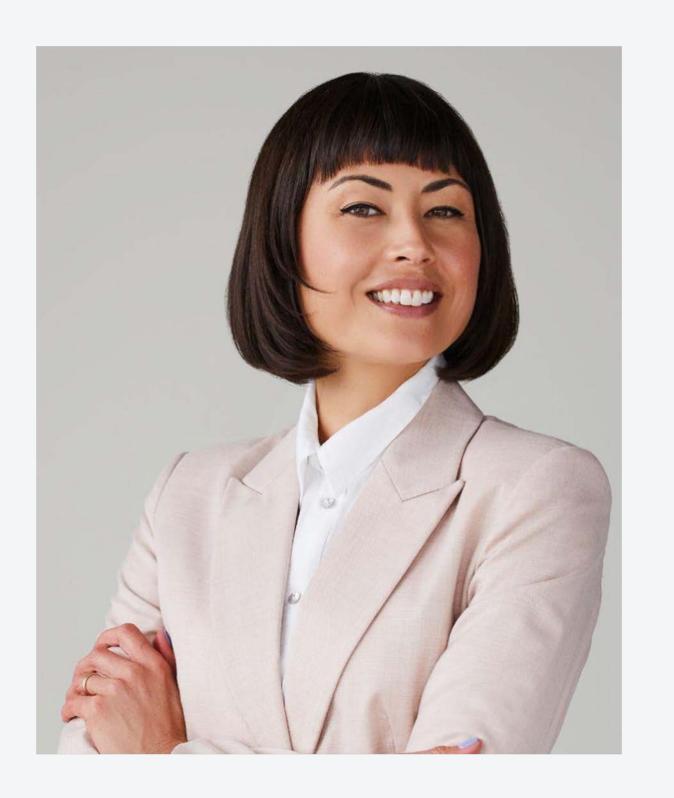
Provide input on CRRC-2 Wall Program Manual Digitization Project



# Wall Committee Staff Contacts



Beth James-Bourgeois beth@coolroofs.org



Sarah Schneider sarah@coolroofs.org





# International Committee Purpose

To guide the CRRC in developing and implementing strategies and objectives for achieving the CRRC strategic plan goal of being a global leader in cool surface information.



# International Committee Scope

- Identify opportunities for engagement with international entities
- Guide CRRC staff in the implementation of strategic planning objectives and development of outreach strategies





# International Committee Roster

Name	Affiliation
Hashem Akbari, <i>Chair</i>	Concordia University
Neetu Jain	Global Cool Green Cities Foundation
Bipin Shah	Winbuild
Kurt Shickman, <i>Vice Chair</i>	Interested Individual



# Topics

- Priority regions
- Funding opportunities
- CRRC offerings
  - Technical assistance
  - Lab training
  - Governance advice
- Translation of materials
- C&S implementation
- CRRC member projects

### Accelerating the Use of Cool Surfaces with Testing and Rating Infrastructure

Cool roofs and walls are widely understood to provide beneficial passive cooling to buildings and their occupants and, when deployed at scale, to whole communities. One of the key challenges in realizing the potential benefits of scaled implementation outside of the United States is a lack of a trusted system for verifying the performance of the products in the marketplace. Markets characterized by low consumer information are more likely to see failures when poor-performing or inappropriate products (e.g., wall paint on roofs) are used. Low consumer information – primarily a lack of publicly available, impartial performance ratings – can also limit the efficacy or reach of policies enacted to help increase the use of cool surface materials.

The <u>Cool Roof Rating Council</u> (CRRC) has over 25 years of experience providing the testing and rating infrastructure that has been essential to growing the cool roof and wall markets in the U.S. and to the development of stringent, enforceable regulations, laws, and incentive programs. The CRRC stands ready to support the development of similar rating infrastructure in new markets, as interest in cool roofs and walls grows internationally.

### **Organization Overview**

The CRRC is a U.S. based nonprofit organization that develops fair, accurate, and credible methods for evaluating and labeling the radiative properties of roofing and exterior wall products. The CRRC provides a public service through <u>product ratings</u>, research, and education in how cool roofs and cool exterior walls can help improve building performance, increase occupant comfort, mitigate the urban heat island effect, and reduce greenhouse gas emissions.

### Mission

To bring objective, scientific information related to cool surfaces to critical discussions and informed decisions about the impacts of heat islands, extreme heat, and energy use in the built environment.

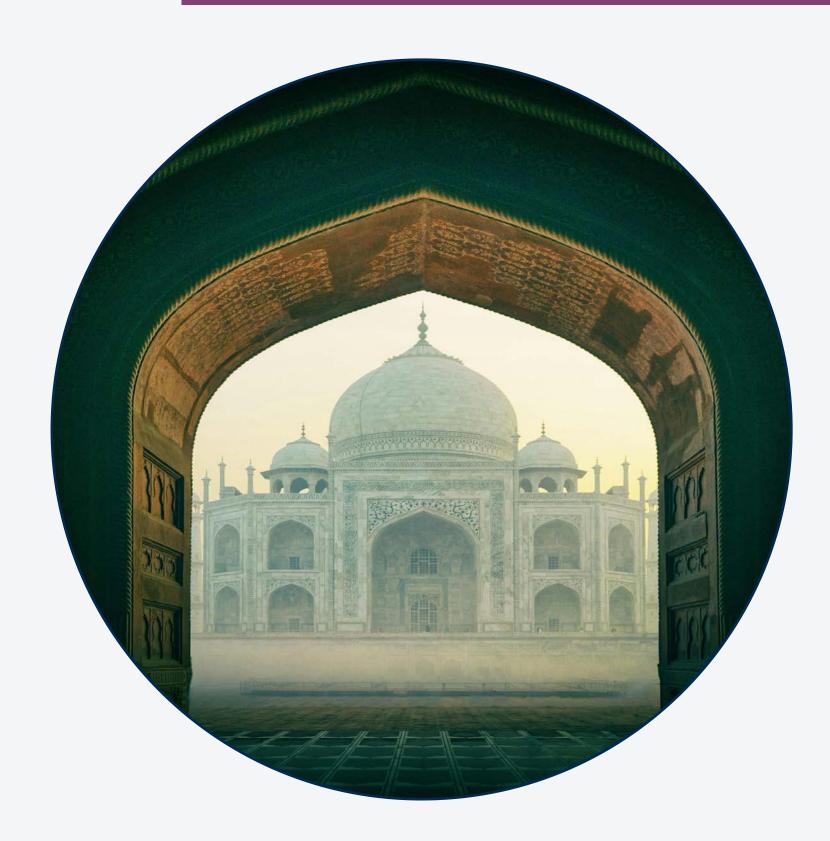
### History of CRRC

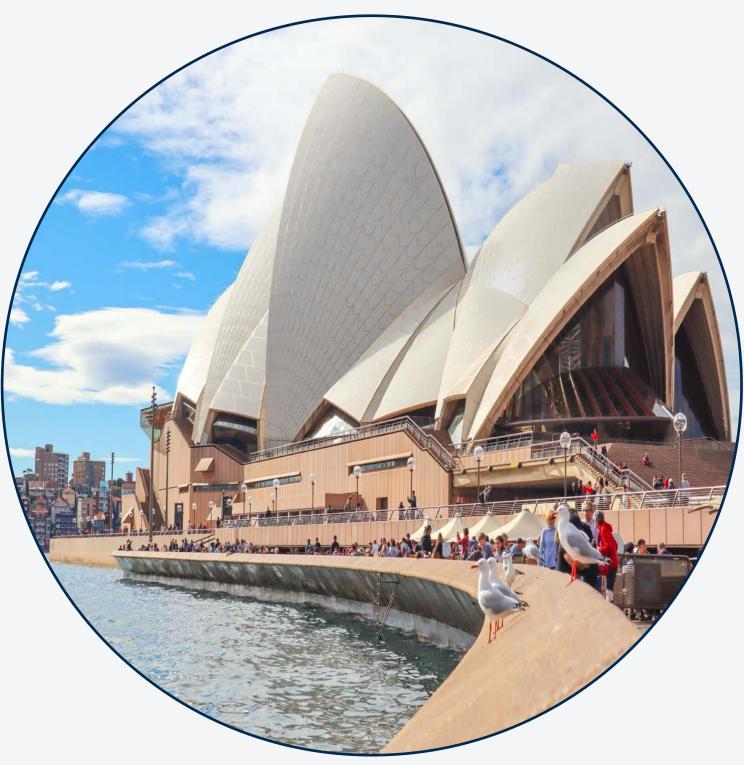
The CRRC was established in 1998 through stakeholder collaboration for the purpose of creating a third-party rating system for the evaluation of the surface radiative properties (solar reflectance and thermal emittance) of roofing products, and to disseminate the information to all interested parties through the Rated Roof Products Directory. The primary need for a third-party rating system was to support compliance and enforcement of cool roof requirements under consideration by the State of California, as part of the statewide Building Energy Efficiency

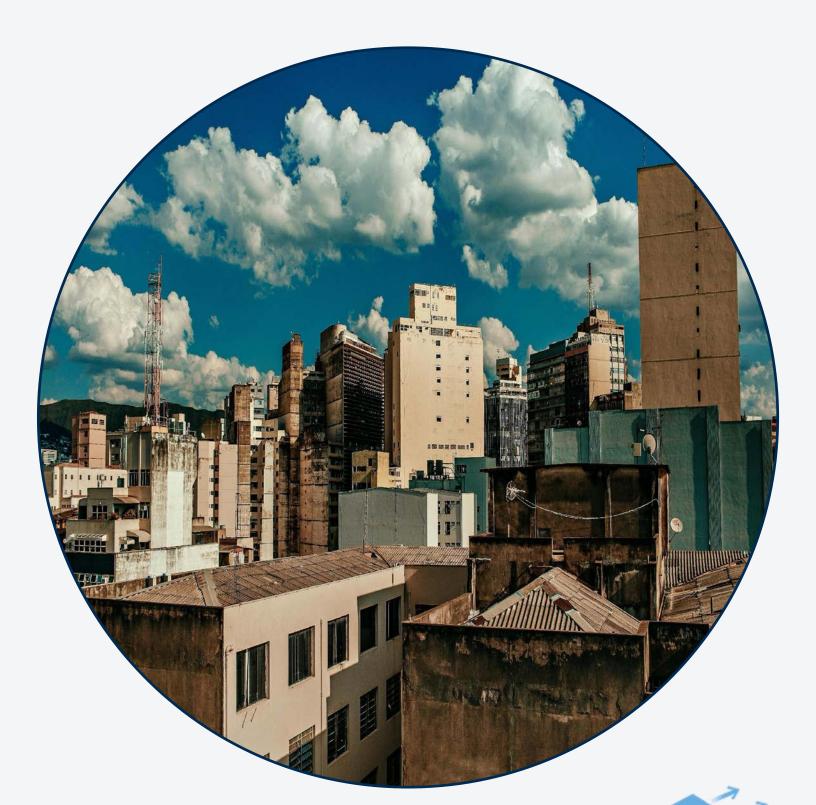
CRRC International Outreach Description	Page 1 of 4		Approved by Board of Directors on June 6, 2024	
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# Priority Regions







India

Australia

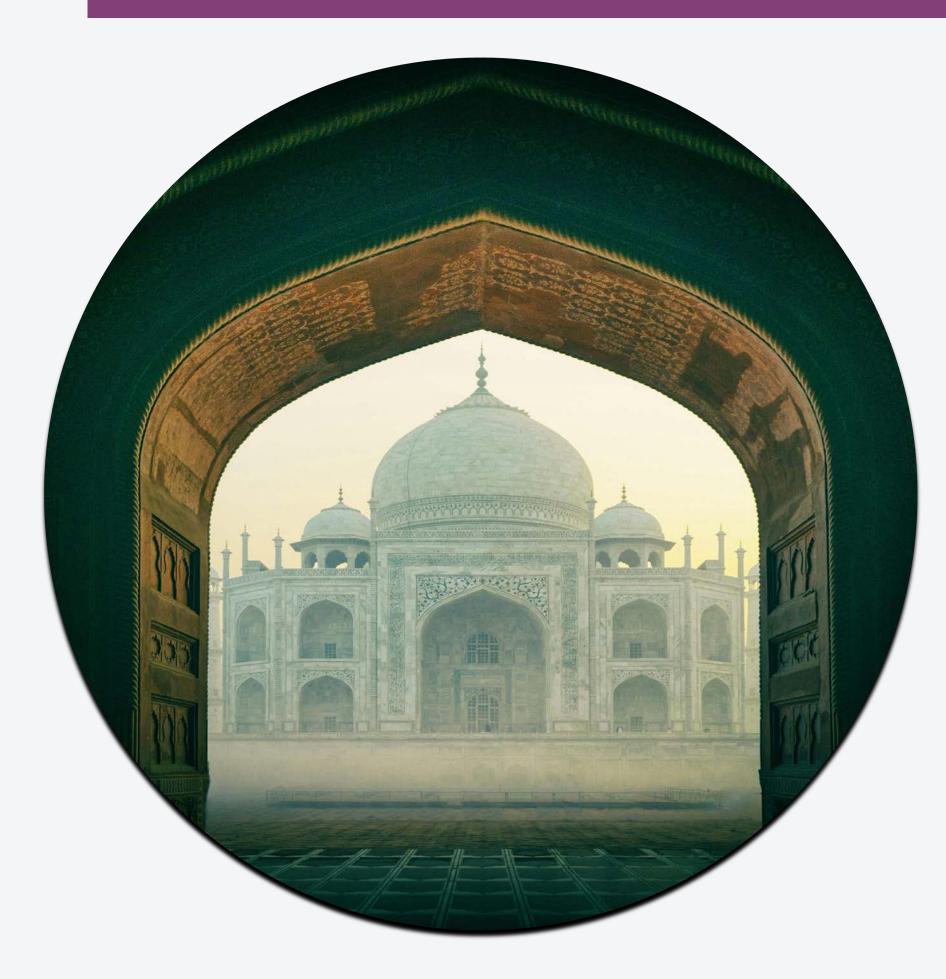


# What makes a priority region?

- A climate in which cool roofs would be beneficial for thermal comfort, energy efficiency, and other goals.
- Active industry partners ready to organize peers and lead the way
- Local institutions with subject matter expertise ready to engage.



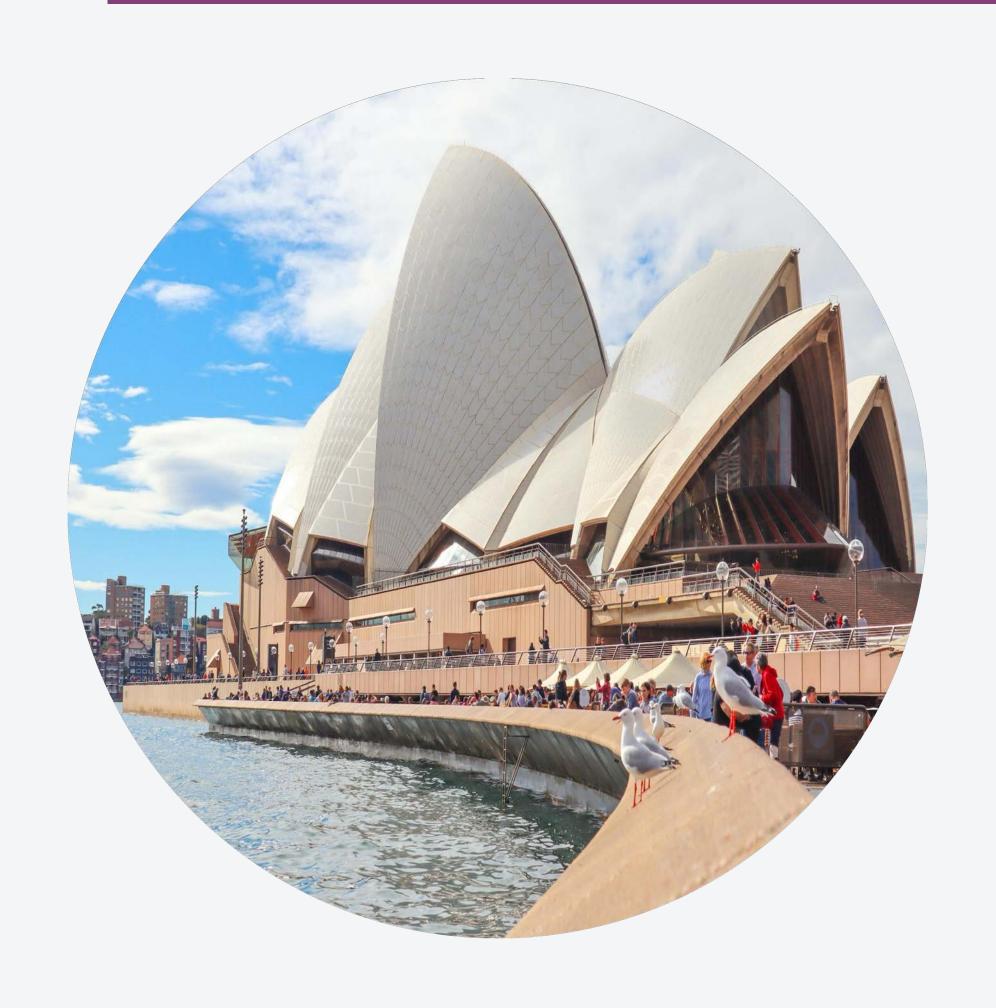
# India



- Continuing to Identify and meet with
   organizations to partner with to provide technical support
- Acknowledgment of CRRC value
- Funding uncertainties
- Kerala cool roof policy
- Heat action planning



# Australia



- CRRC contacted by industry with interest in AUS rating system
- National Energy Code with cool roof and wall provisions
- Not as many manufacturers and product diversity as US and EU
- Political uncertainty with upcoming elections
- Developer and industry support will be important



# Argentina and Paraguay



- CRRC outreach not yet conducted
- Cool roof projects led by CRRC member, MACOMA Environmental Technologies



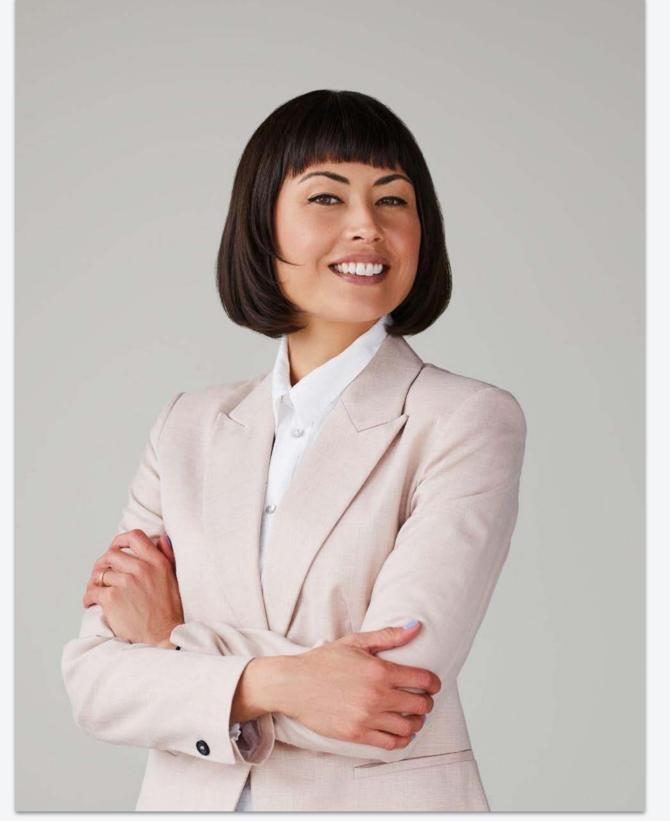
# Opportunities for CRRC and members

- Grow the number of markets utilizing CRRC test methods and procedures; cool surface products
- Large opportunity for growth (i.e. new revenue streams)
- Beneficial for companies operating in international markets or looking to expand internationally



# International Committee Staff Contact

Sarah Schneider sarah @coolroofs.org







# **Education Committee Overview**

### Purpose

Provide guidance on the CRRC's educational activities to improve public awareness and comprehension of cool surfaces

### Scope

- Create educational materials
- Identify opportunities
- Collaborate with other CRRC committees





# **Education Committee Roster**

Name	Affiliation
George Daisey	Dow
Sid Dinwiddie	Asphalt Roofing Manufacturers Association
Iona Isachsen	Smart Surfaces Coalition
Neetu Jain <b>Vice Chair</b>	Global Cool Green Cities Foundation
Wallace Kesler	Dunn-Edwards
Frank Klink	Interested Individual
Maria Koetter	Interested Individual
Dale McIntyre	Behr Paint Company

Name	Affiliation	
Selena Melgoza	Climate Resolve	
Dave Sailor	Interested Individual	
Wade Shepherd	Westlake Royal Roofing Solutions	
Kurt Shickman <i>Chair</i>	Interested Individual	
Shawn Stanley	IB Roof Systems	
Amanda Turner	Cornerstone Building Brands	
Steve Wadding	Polyglass USA	
Howard Wiig	Hawaii State Energy Office	



## Committee Process



Full Committee approves active project, project scope, and target audience





Working group develops draft content and plans dissemination





Stakeholders from target audience provide feedback on draft content



Full Committee approves content



**Board Secretary reviews content** 



Graphic designer creates final layout and illustrations

# Since creation in 2021...

14

Projects completed

CRRC Educators authorized

600+ Course

Learners

completed

AEC Daily

Course

2.51

Views of Factsheets & Brochures webpage

# Recently Completed

One-pager describing how cool roofs can counter global warming by reflecting sunlight back into space

Find it at coolroofs.org



### **COOLING BEYOND THE BUILDING:**

THE POTENTIAL FOR REFLECTIVE SURFACES TO COUNTER GLOBAL WARMING

It is well known that reflective surfaces help keep buildings cooler and reduce the costs and greenhouse gas (GHG) emissions from air conditioning, but is your cool roof also contributing to a cooler planet? A growing body of research highlights the ability of cool surfaces to reflect more sunlight, rather than absorb it, which means these surfaces return more of the sunlight back through the atmosphere and out into space, starting from the moment the surfaces are installed.

### WHAT IS ATMOSPHERIC COOLING?

The Earth gets energy from the sun in the form of sunlight, also known as solar radiation. Increasing the fraction of solar energy that is reflected from the Earth's surface cools the planet's surface and the atmosphere. We can do so by replacing dark, more solar-absorptive surfaces with lighter, more solar-reflective surfaces, such as cool roofs.

In addition to potentially reducing new GHG emissions via energy efficiency, cool roofs could offset the warming effect of GHGs already in the atmosphere. Scientists have tried to quantify the global cooling effect in terms of offsetting GHG emissions since much of our climate policy and finance is based on GHG mitigation.



### HOW MUCH ATMOSPHERIC COOLING IS POSSIBLE FROM COOL ROOFS?

It turns out, quite a lot. Efforts to quantify this effect concluded that the use of more solar-reflective surfaces in cities around the world could cancel the warming effect of 44–57 billion metric tons of emitted carbon dioxide—up to 55% more than the annual global emissions of carbon dioxide in 2022. At a building scale, that means that increasing the reflectivity of 1,000 ft² (93 m²) of roof area could offset the warming effect of 10 tons of CO₂ emissions [1,2].

If all dark roofs were replaced with more solar-reflective roofs, the planet would immediately reflect more sunlight to space, cooling the atmosphere in a manner that is equivalent to removing



GHGs from the air. The roof's reflectance would need to continue to exceed that of the original dark surface to maintain the atmospheric cooling benefit over time.

 How to properly calculate and value albedo modification is an ongoing discussion amongst the scientific and finance communities. Akbari, Menon, and Rosenfeld [1] found that even a modest increase in the solar reflectance of a roof surface can have a positive impact on reducing GHG emissions by lowering the building's cooling demand by reducing its solar heat gain, reducing peak demand, and increasing the community's albedo (solar reflectance).

Complex atmospheric dynamics may prevent highly reflective roofs from realizing the full global cooling potential attributed to them, but the fundamentals remain unchanged—cool roofs absorb less of the sun's energy, decreasing the amount of heat that gets trapped in the atmosphere, and help to cool the world and our homes.

### REFERENCES

[1] H. Akbari, S. Menon, A. Rosenfeld, Global cooling: Increasing world-wide urban albedos to offset CO2, Climatic Change 94 (2009) 275–286. https://doi.org/10.1007/s10584-008-9515-9.

[2] S. Menon, H. Akbari, S. Mahanama, I. Sednev, R. Levinson, Radiative forcing and temperature response to changes in urban albedos and associated CO2 offsets, Environmental Research Letters 5 (2010). https://doi.org/10.1088/1748-9326/5/1/014005.

### **LEARN MORE**

**TWHAT IS A COOL ROOF?** 

CRRC RATED ROOF PRODUCTS DIRECTORY

For more information and resources about cool roofs, visit **coolroofs.org**.





# Recently Completed

Free lesson plan for teaching middle schoolers about radiative properties and UHI mitigation with cool surfaces

Find it at coolroofs.org



### **Cool Surfaces Lesson Plan**

### **Animated Videos**

The below videos provide core instruction on the topics of urban heat islands, surface radiative properties, and cool roofs and cool exterior walls. Students should watch the videos prior to completing the rest of the lesson plan activities. The videos are broken down into three segments to allow for classroom discussion after each segment. All three segments can also be viewed as one video here.

To view the video on YouTube or watch in full screen, click the YouTube logo at the bottom right of the video.



The Urban Heat Island Effect (Cool Surfaces Video Part 1)



Surface Radiative Properties (Cool Surfaces Video Part 2)



Cool Roofs and Walls (Cool Surfaces Video Part 3)

### **Teacher Guide**

The Teacher Guide is a supplemental resource for teachers to be used in conjunction with the Cool Surfaces Lesson Plan materials. The Teacher Guide contains the lesson plan learning objectives; a summary of each of the lesson plan resources; a glossary of terms; elaboration on concepts described in the animated videos; ideas for modifying the Cool Surfaces Experiment; opportunities for support from the CRRC community; links to sources and additional resources; and CRRC contact information.

CRRC Cool Surfaces Lesson Plan Teacher Guide

### **Cool Surfaces Experiment**

The Cool Surfaces Experiment guides students in creating "buildings" out of cardboard boxes and observing the effect of different exterior surfaces on the air temperature inside the boxes when placed under infrared heat lamps simulating direct sunlight. The experiment compares white and black surfaces, but ideas for potential modifications to the experiment can be found in the Teacher Guide. Download the written experiment instructions or watch the video tutorial below.

Cool Surfaces Experiment Instructions



Cool Surfaces Experiment Tutorial Video

### **Cool Surfaces Worksheet**

The Cool Surfaces Worksheet is a supplemental material containing short-answer, multiple choice, and true/false questions. It is intended to reinforce the information learned from the animated videos and Cool Surfaces Experiment. The worksheet can be completed as homework or an in-class activity.

The worksheet is available for download as a PDF with a separate Answer Key and as a Word document so that the questions can be modified if desired. Please note that the Answer Key on page 3 of the Word version should be removed prior to distribution to students.

Cool Surfaces Worksheet (pdf)

Cool Surfaces Worksheet (Word)

Cool Surfaces Worksheet Answer Key

# Recently Completed

Two-pager describing the **CRRC** Roof Product Rating Program as a potential alternative to the former **ENERGY STAR®** roofing certification

Find it at coolroofs.org



### **ENERGY STAR® ROOF PROGRAM ALTERNATIVE**

### **HOME AND BUILDING OWNERS**

### **DID YOU KNOW THAT...?**

The ENERGY STAR® certification program for roofing products officially ended on June 1, 2022.

#### WHAT DOES THIS MEAN FOR YOU?

Roofing products with an ENERGY STAR label on the package are technically no longer certified as meeting specific performance standards. The U.S. Environmental Protection Agency prohibits the use of the certification label on roofing product packaging and literature. This may be why you're having trouble finding ENERGY STAR certified roofing products that qualify for a financial incentive or comply with a municipal ordinance or code

### IS THERE AN ALTERNATIVE TO **ENERGY STAR CERTIFICATION** OF ROOFING PRODUCTS?

The Cool Roof Rating Council (CRRC) operates a rating program for roofing products that underpins many U.S. building codes and green building certification programs and publishes similar data to what was required for ENERGY STAR certification of roofing products. Over 3,000 roofing products are published in the CRRC Rated

Roof Products Directory, which is a free, publicly available online database that building owners, program developers, policymakers, contractors, and design professionals have relied on for years for third-party data. The directory is a reliable tool for searching for and comparing roofing products that may qualify for code compliance, green building certification, and financial incentives. The ratings are also on CRRC labels found on product packaging. Please check with the issuer of the financial incentive or your local building department to verify that a CRRC-rated product can be used for qualification or compliance.



The standard CRRC Product Label. Usage requirements can be viewed at COOLROOFS.ORG

It is important to note that the CRRC Rated Roof Products Directory is not limited to products that meet ENERGY STAR certification criteria. Any roofing product can be rated as long as it complies with the CRRC-1 Product Rating Program Manual.

#### TABLE 1 - Specifications for Low-Slope Roof Products Characteristic Performance Specification WHAT WERE THE Solar Reflectance nitial Solar Reflectance | Greater than or equal to 0.65 Maintenance of Greater than or equal to 0.50 three years after Solar Reflectance installation under normal conditions TABLE 2 - Specifications for Steep-Slope Roof Products Characteristic Performance Specification Solar Reflectance nitial Solar Reflectance | Greater than or equal to 0.25 **CAN BE ACCESSED** Greater than or equal to 0.15 three years after Maintenance of

Solar Reflectance

### WHAT DO THE RATINGS MEAN?

PUBLISHED JANUARY 2025

The ratings are based on a product's surface radiative properties (solar reflectance and thermal emittance) and range from 0 to 1, with 1 being the most reflective or emissive. The ratings provide some indication to consumers about the effectiveness of a product in reducing building energy use, lowering indoor temperature, about cool roofs, visit coolroofs.org. RATING COUNCIL R and mitigating the urban heat island effect (learn more).

### **LEARN MORE**

**TWHAT IS A COOL ROOF?** 

installation under normal conditions

CRRC RATED ROOF PRODUCTS DIRECTORY

For more information and resources

### **ENERGY STAR®** ROOF PROGRAM ALTERNATIVE

### PROGRAM DEVELOPERS AND POLICYMAKERS

### Is there an alternative to ENERGY STAR certification of roofing products?

To help with ongoing compliance and enforcement of cool roof installations, references to ENERGY STAR could be replaced with references to the CRRC-1 Roof Product Rating Program (CRRC-1 Roof Program).

Replacing existing references to ENERGY STAR with the CRRC-1 Roof Program ensures that the solar reflectance, thermal emittance, and/or solar reflectance index (SRI) values used for compliance are independently obtained, verified, and publicly accessible.

Referencing the CRRC-1 Roof Program also allows for greater flexibility and control. Unlike certification programs like ENERGY STAR which require products to meet certain performance criteria, nearly any type of roofing product can be tested and rated per the CRRC-1 Roof Program. This gives entities the ability to set their own requirements and define what is a "cool roof" in their jurisdictions.

"Louisville's Office of Sustainability offers a \$1/sf cool roof incentive to address the city's significant urban heat island issue. Further, a majority of our incentive funds are dedicated to communities experiencing disparate impacts of urban heat. We have been utilizing the Cool Roof Rating Council (CRRC)'s rating program and product directory to continue to incentivize energy efficient cool roofs in our city beyond the sunset of the ENERGY STAR certified roofing program. CRRC allows our city, property owners, and contractors to more easily be part of the solution, which has allowed us to incentivize over 1 million square feet of cool roofs to date!"

> SUMEDHA RAO, Executive Director of City of Louisville's Mayor's Office of Sustainability

### What is the CRRC-1 Roof Program?

It's a third-party product rating program for roofing products that is administered by the Cool Roof Rating Council (CRRC). The program has been in existence since 2002 and was developed with input from a wide array of stakeholders (learn more).

### **LEARN MORE**

**TWHAT IS A COOL ROOF?** CRRC RATED ROOF PRODUCTS DIRECTORY

For more information and resources COOL ROOF about cool roofs, visit coolroofs.org. RATING COUNCIL.

### **Examples of CRRC Rated Roof Product References**

California Building Energy Efficiency Standards (Title 24, Part 6)

City of Denver Green Building Ordinance

City of Louisville Cool Roof Incentive Program

City of Los Angeles Green Building Code

City of Los Angeles Cool Roof Rebate

County of Los Angeles Green Building Standards Code

City of Miami Land Use Ordinance

Washington Evergreen Sustainable Development Standard, v4.0

# Active Projects

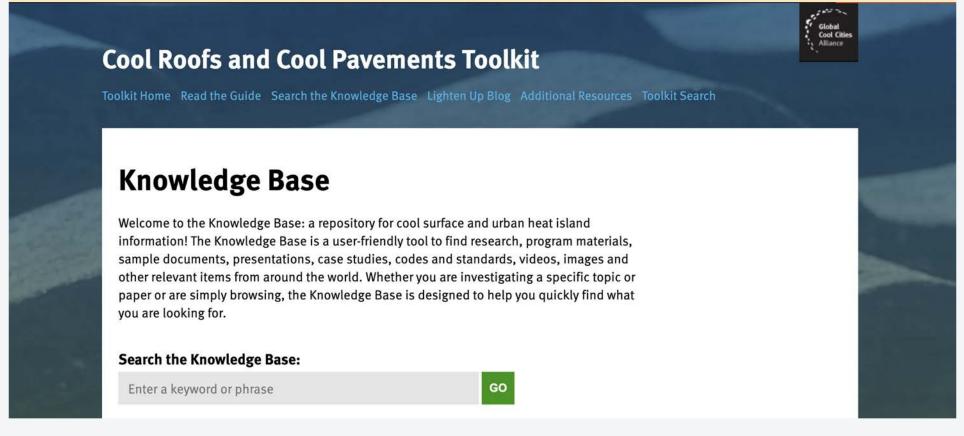
### **Cool Roofs & Solar PV Guide**

- Describes the mutually beneficial relationship between rooftop solar photovoltaics and cool roofs
- Est. Publication: Summer 2025



### **CRRC** Resources Microsite

- Committee to provide feedback on content for new microsite featuring educational resources and research database
- Est. Publication: Winter 2026





# **Education Committee Staff Contact**

Audrey McGarrell

audrey@coolroofrs.org







# Pavement Ratings Steering Committee



Evaluate technical issues



Develop program procedures & requirements



Develop program financial model



Present program plan to Board



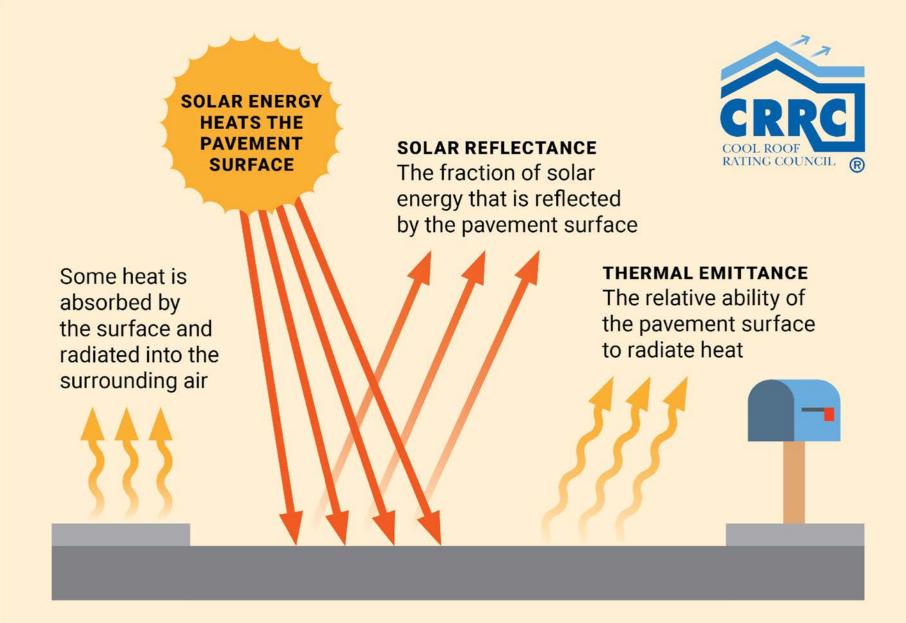
# Committee Roster

Name	Affiliation
Rodney Armstrong	ACE Laboratories
Jean-Paul Fort	NAPA
Dan Haines	Azelis
Steve Heinje	GAF
Iona Isachsen	Smart Surfaces Coalition
Wallace Kesler	Dunn-Edwards
Jim Kirby	Siplast
Frank Klink	Interested Individual
Jessica Levin	Dow
Ronnen Levinson	LBNL
Bart Lungren	Pavement Technology, Inc.
Bryn Moncelsi	Climate Resolve
Ryan Stevens	City of Phoenix
Steve Wadding	Polyglass USA



## **Education & Outreach Activities**

- coolroofs.org/resources/what-are-cool-pavements
- Infographic
- Request for Information from end-users (e.g. cities)
- Outreach to key stakeholders

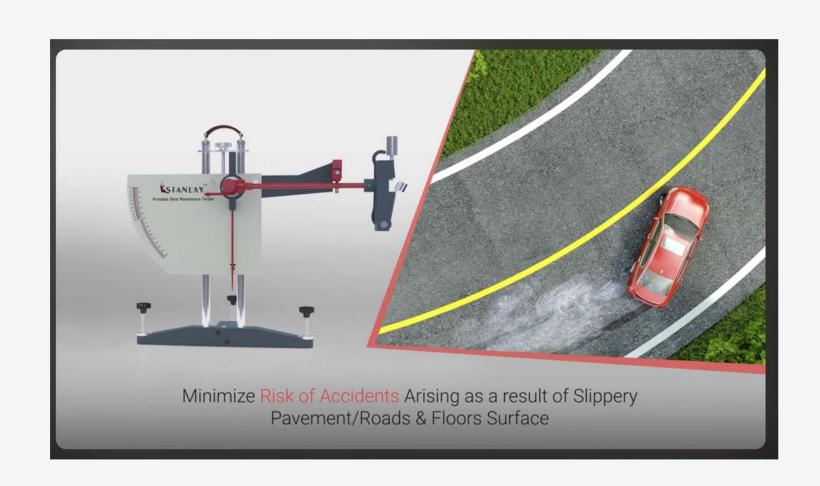




# Program & Technical Discussions

- Applicability of SRI
- Thermal comfort metrics
- · Specimen size & preparation
- Product type categorization
- Other test considerations
   (e.g., friction)

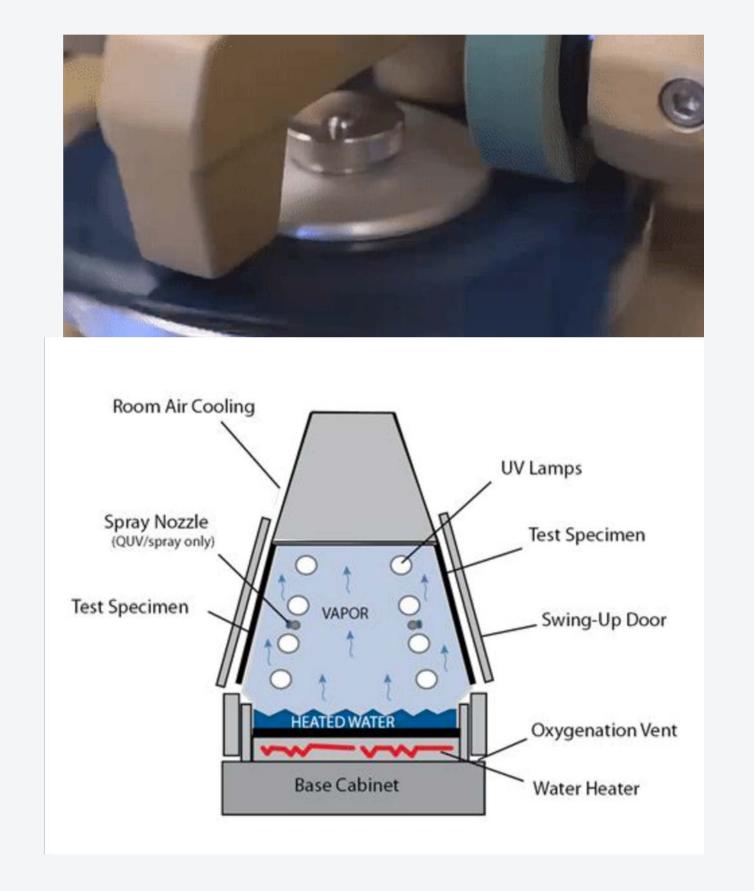
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# Program & Technical Discussions

Natural & simulated aging

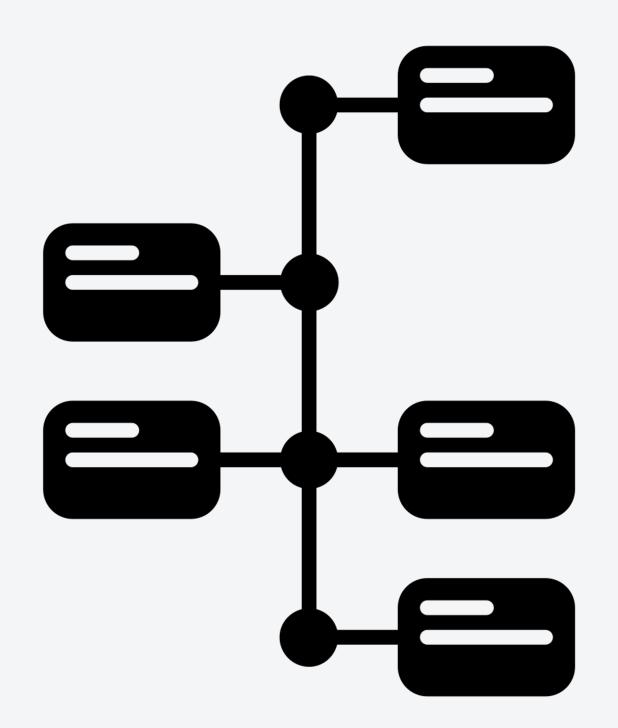






# The Task Ahead

- Complete draft program concept & structure
- Seek buy-in from participants and users
- Explore pavement aging research opportunities





# Pavement Steering Committee

Staff Contact

Jeff Steuben

jeff@coolroofs.org

