



# COOL RETROSPECTIVE: Cool Surfaces in the News 2014

Each quarter, the Global Cool Cities Alliance (GCCA) compiles the media covering cool roofs, cool pavements, and a wide range of urban heat island-related issues in a report we call *Cool Retrospective*. In this issue, we take a look back at the first half of 2014.

## Cool Policies for Cool Cities

A recent [survey of 26 North American cities](#) by GCCA and the American Council for an Energy-Efficient Economy shows that many cities are already [getting results](#). Nearly two thirds of the cities surveyed cited local extreme weather events as a key reason for initiating urban heat island mitigation strategies.

## Cooling the World, One White Roof at a Time

[Grist](#) reports on Art Rosenfeld's lifetime commitment to energy efficiency and his more recent efforts to reduce excess urban heat. Dr. Rosenfeld is a founding member of GCCA's Board.

## Bipartisan Cool Roof Legislation Was Just Introduced in the Senate

U.S. Senator Ben Cardin (MD) [recently introduced](#) the bi-partisan [Energy-Efficient Cool Roofs Act](#) – a bill that is sure to help bring down urban heat and create new jobs nationwide.

## Cool Roofs Help Reduce Energy Consumption and Lower Utility Bills Around the World

A [research project](#) in Abu Dhabi finds that white coatings may help to [reduce cooling loads](#) by 20 percent.

And white roofs are catching on as a way to bring down electricity bills and urban heat in [Portland, Oregon](#).

They're feeling the heat [up in Toronto](#), but city administrators see the benefits of cool roofs and are [helping people](#) install white and green roofs by offering rebates.

## New Studies Confirm that Cool and Green Roofs are Effective Ways to Reduce Excess Urban Heat

A new [GCCA urban heat study](#) finds that adding vegetation and reflective surfaces to cities can cut heat-related mortality, sometimes quite significantly. GCCA and its partners studied actual heat waves in Baltimore, MD, Los Angeles, CA, and New York, NY. The results reveal that employing UHI mitigation strategies cools the outdoor air temperature enough to save 32 lives in Baltimore, 22 lives in Los Angeles, and 219 lives in New York City over a 10-year period.

[A recent Princeton study](#) looks at the benefits of cool and green roofs, and finds that cool roofs help reduce the urban heat island effect in the Baltimore-Washington metropolitan area.

A [study of London](#) shows that non-insulated green and cool roofs work best at reducing urban heat. The [Ecologist](#) explains how.

[The Guardian](#) reports on a new [Arizona State University](#) study, which explains how air conditioners generate more heat at night.

Australian news site [Sourceable](#) reports on another [ASU study](#) that shows that cool roofs help reduce urban temperatures and mitigate climate change.

[Researchers are collecting data](#) on urban temperatures in Minneapolis / St. Paul, Minnesota, and they're finding cooler temperatures in areas with more vegetation and reflective surfaces.

## Extreme Heat Events Are Getting Worse and Happening Earlier Each Year

[Extreme heat](#) causes more deaths in the U.S. each year than all other natural disasters combined. Forecasters in London warn that heat waves capable of killing hundreds and melting roads [are likely to become the new normal](#) by 2040.

We expect to experience extreme heat events in the summer, but [California](#), [Texas](#) and [Kansas](#) were already suffering with temperatures topping 100 degrees by late April and early May of this year.

The [National Climate Assessment \(NCA\)](#) finds that climate change is already costing lives. [Extreme heat tops the list](#) in this report of the top five threats.

A record-breaking heat wave hit northern India in early June as temperatures reached [120 degrees](#). The power authority couldn't keep up with the [increased energy demand](#), which led to [power and water cuts](#), and riots throughout the region.

The good news is that cool roofs are making a difference in India, according to a study conducted by the Surat Climate Change Trust (SCCT). From the [Times of India](#).

Research commissioned by the [City of Melbourne](#) as part of its Climate Change Adaptation Strategy found that a January heat wave cost local businesses approximately \$37 million.

## Reports Confirm Need for Urgent Action to Reduce Urban Heat

The [Intergovernmental Panel on Climate Change](#) (IPCC) has issued several reports on the science, adaptation, and mitigation of climate change. The [mitigation report](#) notes that white roofs can help lower urban heat.

The [Risky Business report](#) discusses the damage caused by unmitigated climate change to the U.S. economy, and notes the dangers of extreme heat in urban areas. It also provides business leaders

with a framework for estimating and mitigating their exposure to climate risk.

The [New Republic](#), [LA Times](#), and [Sydney Morning Herald](#) provide background on the rising climate concerns in the business community.



*Photo Credit: Emerald Cities*

## Awareness of Cool Pavement Grows

[The City of Sydney](#) is conducting a trial to see if [lighter colored pavement](#) will help reduce the urban heat island effect. Architecture and design [has more](#).

[Landscape Architecture](#) reviews the debate over reflective pavements.