



Karl Burkart

Internet entrepreneur blogs about the latest in green media and technology



White paint: a surprising cure for global warming

DOE head Steven Chu praises the benefits of whitewashing roofs to reduce energy consumption.

Reprint: Mother Nature Network



Photos by The Cool Roof Contractor

We can all agree that greenwashing is not good for the environment, but as it turns out whitewashing may be the quickest and cheapest way to slow global warming.

On Tuesday Dept. of Energy head Steven Chu stated during the climate change summit in London that as we ramp up carbon-free energy alternatives, we need to tackle simpler measures which will create jobs while reducing our total energy demand.

And the fastest way to quickly reduce energy demand? Whip out the white paint.

Chu cited a statistic (variants of which have been widely circulated on the web for years eg). The that painting roofs white and making paved surfaces lighter in urban areas would have a massive impact on global CO2 emissions- -- the equivalent of taking every car off the road for

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If you are familiar with the Princeton Wedges -- the 12 to 14 big developments required to keep global temperatures stable -- white roofs alone could make up a single wedge, solving up to 8 percent of the global warming problem.

The technical term for painting your roof white is known as "negative radiative forcing." Light, reflective surfaces bounce 10-20 percent of the summer heat back into the sky, reducing urban heat island effect and significantly reducing summer cooling costs, thus its more common name -- a "cool roof."

Painting a roughly 1000 square foot roof with a high albedo coating (like elastomeric white paint) on average will reduce that building's CO2 emissions by 10,000 tonnes over the life of the roof (about 1 tonne per year). In hot climates with heavy AC demand like Florida or Atlanta, the benefits are much greater.

Many states now offer rebates and incentives for building owners who want to reduce their summertime energy use by installing cool roof coatings. Energy Star lists available cool roof options, and cites an amazing statistic -- 1/6 of all electricity consumed in the U.S. is for air conditioning, and white coatings could reduce that figure by 10-15 percent.